EXHIBIT 1
DATE 2-18-09
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27-19-306. Security for damages. (1) Subject to 25-1-402, on granting an injunction or restraining order, the judge shall require a written undertaking to be given by the applicant for the payment of the costs and damages that may be incurred or suffered by any party who is found to have been wrongfully enjoined or restrained. Except as provided in subsection (2), the undertaking:

(a) must be fixed at a sum that the judge considers proper; and

(b) may be waived:

(i) in domestic disputes; or

(ii) in the interest of justice.

(2) (a) If a party seeks an injunction or restraining order against an industrial operation or activity, the judge shall require a written undertaking to be filed by the applicant. The amount of the written undertaking must be set in an amount that includes all of the wages, salaries, and benefits of the employees of the party enjoined or restrained during the anticipated time that the injunction or restraining order will be in effect. The amount of the written undertaking may not exceed $50,000 unless the interests of justice require. The written undertaking must be conditioned to indemnify the employees of the party enjoined or restrained against lost wages, salaries, and benefits sustained by reason of the injunction or restraining order.

(b) As used in subsection (2)(a), "industrial operation or activity" includes but is not limited to construction, mining, timber, and grazing operations.

(3) Within 30 days after the service of the injunction, the party enjoined may object to the sufficiency of the sureties. If the party enjoined fails to object, all objections to the sufficiency of the sureties are waived. When objected to, the applicant's sureties, upon notice to the party enjoined of not less than 2 or more than 5 days, shall justify before a judge or clerk in the same manner as upon bail on arrest. If the sureties fail to justify or if others in their place fail to justify at the time and place appointed, the order granting the injunction must be dissolved.

(4) This section does not prohibit a person who is wrongfully enjoined from filing an action for any claim for relief otherwise available to that person in law or equity and does not limit the recovery that may be obtained in that action.

History: En. Sec. 86, p. 59, Bannack Stat.; re-en. Sec. 115, p. 154, L. 1867; re-en. Sec. 132, p. 52, Cod. Stat. 1871; re-en. Sec. 174, p. 79, L. 1877; re-en. Sec. 174, 1st Div. Rev. Stat. 1879; re-en. Sec. 176, 1st Div. Comp. Stat. 1887; en. Sec. 874, C. Civ. Proc. 1895; re-en. Sec. 6646, Rev. C. 1907; re-en. Sec. 9246, R.C.M. 1921; Cal. C. Civ. Proc. Sec. 529; re-en. Sec. 9246, R.C.M. 1935; amd. Sec. 53, Ch. 535, L. 1975; R.C.M. 1947, 93-4207; amd. Sec. 48, Ch. 12, L. 1979; amd. Sec. 8, Ch. 399, L. 1979; amd. Sec. 1, Ch. 575, L. 1995.

K

47-1-103. Definitions. As used in this chapter, the following definitions apply:

(1) "Commission" means the public defender commission established in 2-15-1028.

(2) "Court" means the supreme court, a district court, a youth court, a justice's court, a municipal court, or a city court.

(3) "Indigent" means that a person has been determined under the provisions of 47-1-111 to be indigent and financially unable to retain private counsel.

(4) "Office" means the office of state public defender established in 47-1-201.

(5) "Public defender" means an attorney employed by or under contract with the office and assigned to provide legal counsel to a person under the provisions of this chapter.

(6) "Statewide public defender system", "state system", or "system" means the system of public defender services established pursuant to this chapter.

History: En. Sec. 2, Ch. 449, L. 2005.

K

47-1-111. Eligibility -- determination of indigence -- rules. (1) (a) Beginning July 1, 2006, when a court orders the office to assign counsel, the office shall immediately assign counsel prior to a determination under this section.

(b) If the person for whom counsel has been assigned is later determined pursuant to this section to be ineligible for public defender services, the office shall immediately notify the court so that the court's order may be rescinded.

(c) A person for whom counsel is assigned is entitled to the full benefit of public defender services until the court's order requiring the assignment is rescinded.

(d) Any determination pursuant to this section is subject to the review and approval of the court.

(2) (a) An applicant who is eligible for a public defender only because the applicant is indigent shall also provide a detailed financial statement and sign an affidavit.

(b) The application, financial statement, and affidavit must be on a form prescribed by the commission.

(c) Information disclosed in the application, financial statement, or affidavit is not admissible in a civil or criminal action except when offered for impeachment purposes or in a subsequent prosecution of the applicant for perjury or false swearing.

(d) The office may not withhold the timely provision of public defender services for delay or failure to fill out an application. However, a court may find a person in civil contempt of court for a person's unreasonable delay or failure to comply with the provisions of this subsection (2).

(3) An applicant is indigent if:

(a) the applicant's gross household income, as defined in 15-30-171, is at or less than 133% of the poverty level set according to the most current federal poverty guidelines updated periodically in the federal register by the United States department of health and human services under the authority of 42 U.S.C. 9902(2); or

(b) the disposable income and assets of the applicant and the members of the applicant's household are insufficient to retain competent private counsel without substantial hardship to the applicant or the members of the applicant's household.

(4) A determination of indigence may not be denied based solely on an applicant's ability to post bail or solely because the applicant is employed.

(5) A determination may be modified by the office or the court if additional information becomes available or if the applicant's financial circumstances change.

(6) The commission shall establish procedures and adopt rules to implement this section. Commission procedures and rules:

(a) must ensure that the eligibility determination process is fair and consistent statewide;

(b) must allow a qualified private attorney to represent an applicant if the attorney agrees to accept from the applicant a compensation rate that will not constitute a substantial financial hardship to the applicant or the members of the applicant's household;

(c) may provide for the use of other public or private agencies or contractors to conduct eligibility screening under this section;

(d) must avoid unnecessary duplication of processes; and

(e) must prohibit individual public defenders from performing eligibility screening pursuant to this section.

History: En. Sec. 14, Ch. 449, L. 2005.

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	MFSA	MEPA/NEPA	Individual Permits	BER Appeals ?
When?	Upon initiation of proposed project. (Not always required).	During or immediately after completion of MFSA application, or upon initiation of proposed project.	After issuance of a FONSI or ROD, and upon completion of enough design to adequately calculate impacts.	After issuance of a permit.
What?	Environmental overview of potential impacts.	Detailed analysis of proposed impacts and mitigation. This procedural effort is intended to be open and objective, and foster good decision-making.	Detailed application identifying impacts and mitigation commitments. These may include air quality, water quality, stream crossing, etc. permits.	No formal requirement for form or substance of an appeal. (General guidance provided in MCA 2.4.6 contested case procedures).
Defined Criteria?	Well explained in DEQ's MFSA Circulars.	Well defined criteria, and based on sound scientific analysis, and professionally accepted practice.	Well defined, and based on studies conducted as part of the MFSA and/or MEPA/NEPA process.	No established criteria for scope or limits of an appeal.
Level of Public Involvement?	One or more public meetings required, and application to include "…assessment of public attitudes and concerns about the potential impacts, based on representative views of persons residing in the impact zone …" Often includes individual interviews, surveys, and local informational meetings.	Extensive. Includes formal scoping, 30 to 45 day comment period on the EA or EIS and Public Hearing at a minimum, but more often includes public informational meetings, workshops, individual interest group meetings, information on web-pages, project newsletters, and presentations to local civic organizations.	A minimum 15-day public review of the application before it is issued.	No defined process to solicit input from project proponents or opponents during the appeals process.
Defined End?	Yes, with issuance of Certificate of Compliance.	Yes, with issuance of FONSI or ROD.	Yes, with issuance of permit.	No. The potential for continual and unsubstantiated appeals is limitless, and may ultimately result in litigation.

Litigation

HB 566

Focus of HB 483

A

B

The Case for Appeals and Litigation reform:

According to DEQ, there have been 6 major energy projects over the last 8 years or so. Notice that all 6 where appealed, some multiple times. Notice that the level of "gaming" of permits, i.e. appealing and litigation has substantially increased in the later projects. Two were appealed and litigated to Supreme Court. One was broken. Appeals were even filed in the last case on the BACT after it was changed in the favor of the appellant.

Appeals of Energy Generation Facility Air Quality Permits

1. Rocky Mountain Power (Hardin plant)--Appealed to Board. Settled.

2. Continental Energy (proposed Butte plant)--Appealed to district court. Judgment for Department. Not appealed.

3. Northwestern Energy (proposed Great Falls plant)--Appeal to Board. Settled.

4. Roundup Power--3 appeals to Board and one court challenge. Board held for Department in one, which was appealed district court. District court held for Department. Petitioners appealed to Supreme Court. Supreme Court held in part for petitioners and in part for Department. Board held for petitioners in another case. Third appeal to Board dismissed as moot. In court challenge district court held for Department. Petitioners appealed to Supreme Court. Supreme Court dismissed as moot.

5. Thompson River Co-Gen (proposed Thompson Falls plant)--Appeal to Board. Board held in part for Department, in part for petitioners. Ruling in favor of Department appealed to district court. District court upheld Department. Petitioners have appealed to Supreme Court.

6. Southern Montana Electric (proposed Great Falls plant)--Appeal to Board. Ruling in part for petitioners and in part for Department. Ruling for Department appealed to district court. Ruling for petitioners resulted in Department doing a new BACT determination. New BACT determination appealed to Board.

Here's how one prominent environmental activist characterized his organization's approach to this issue in an interview with the Associated Press this in January 2008: *"Our goal is to oppose these [baseload coal] projects at each and every stage, from zoning and air and water permits, to their mining permits and new coal railroads," said Bruce Nilles, a Sierra Club attorney who directs the group's national coal campaign. Nilles said the Sierra Club spent about $1 million on such efforts in 2007 and hopes to ratchet that figure up to $10 million this year."*

Roundup Power Plant

Roundup Coal-Fired Power Project Derailed

(November 2007)

It's official—the Roundup Power Project will not be built.

It's not everyday that you can say you helped stop a 780-megawatt coal-fired power plant that would have increased Montana's overall global warming emissions by 27%. But today you can. MEIC members can be proud that their support helped stop the ill-conceived Roundup Power Project. In October the Montana Department of Environmental Quality officially revoked the air pollution permit for the plant.

The Roundup Power Project received its first air pollution permit in January 2003. MEIC had to file a total of four legal challenges to the plant: two regarding the emissions of nonhazardous and hazardous air pollutants, and one involving the State's compliance with the Montana Environmental Policy Act and failure to protect Montanans' constitutional right to a clean and healthful environment. Finally, MEIC had to bring an administrative appeal to force the revocation of the permit.

In July 2005 DEQ told the company that its permit had expired because it had failed to begin construction by the deadline stated in the permit. Politics soon came into play; by October 2005, DEQ had reversed course under direction from the Governor's Office. DEQ gave the company an additional 18 months to begin construction.

MEIC appealed that extension to the Board of Environmental Review. This Summer, the Board's hearings examiner found that the permit had indeed expired and recommended that the Board rule in MEIC's favor. Before the Board could act, the company sent a letter to DEQ asking that its permit be revoked. In its letter the company said that its permit had been "needlessly attacked by various obstructionist groups." Name calling didn't change the outcome. In October, DEQ officially revoked the air pollution permit for the plant.

Emissions Detailed in the Roundup Air Quality Permit

Pollutant	Tons per Year
Carbon Monoxide	4,917
Sulfur Dioxide	3,939
Nitrogen Oxides	2,329
Particulate Matter	508
Volatile Organic Carbons	99
Hazardous Air Pollutants	90
Lead	0.2
Mercury	0.1

Nationwide, coal-fired power plants are the single largest source of global warming pollution. Scientists worldwide say that emissions of global warming pollutants must be reduced by 80% by the year 2050 and that those reductions must start immediately. If we fail to heed these warnings, the most catastrophic impacts of a warmer planet will be unavoidable. As world-renowned climate scientist Dr. James Hansen said, coal-fired power plants should be the primary target of efforts to reduce global warming. MEIC's success in stopping the Roundup Power Project is one important step in that direction.

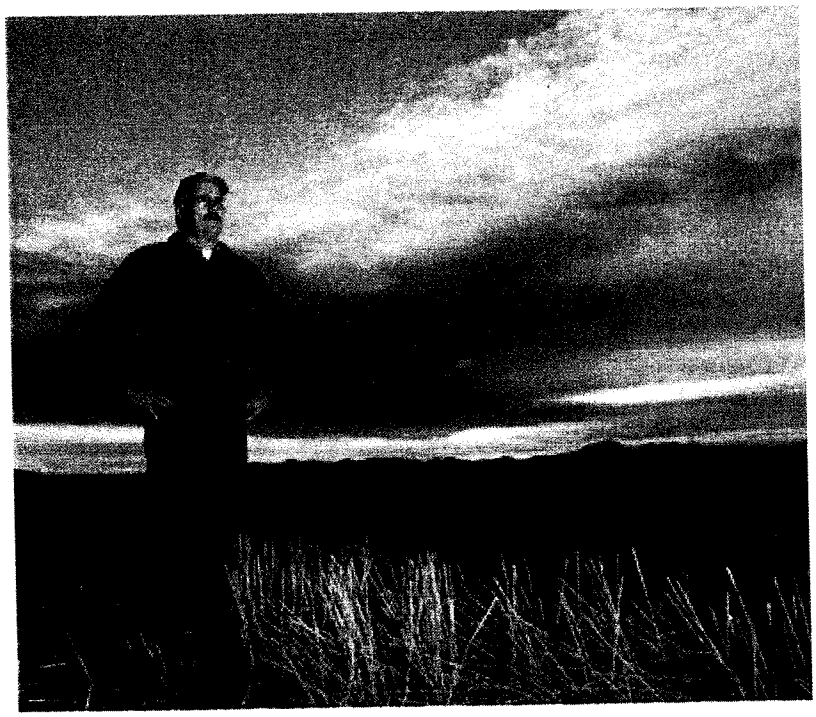
IN THE NEWS

- **Pipe dream: Hopes for a coal-powered future darken by the day** *(by John S. Adams,*

Highwood Generating Station

BREAKING NEWS!!!!!!!!!

- **Southern Montana Electric Generation and Transmission has scrapped plans to build a $950-million coal-fired power plant east of Great Falls** *(by Karl Puckett, Great Falls Tribune, Tuesday 2/3/09)*
- **Co-op gives up trying to build coal plant** *(by Jan Falstad, Billings Gazette, 2/3/09)*



Highwood-area organic farmer Daryl Lassila, who's business would be seriously threatened by the Highwood plant. Photo by Rion Sanders.

The **Highwood Generating Station** is a 250 megawatt (MW) coal-fired power plant to be located about ten miles east of the city of Great Falls. The project is being proposed by the Southern Montana Electric Generation & Transmission Cooperative (SME), a recently-formed entity that includes five rural electric co-ops and the City of Great Falls.

For the last several years MEIC has steadfastly opposed the development of new coal-fired power plants in Montana because of their enormous contribution to global warming. SME's Highwood Generating Station is of particular concern. The electricity is not needed. The technology is outdated. It will be located on some of the most productive farmland in Montana and will ruin a National Historic Landmark. Stopping this plant requires action at the local, state, and federal levels.

MEIC—with the help of local farmers and ranchers, a local citizens group (the Great Falls-based Citizens for Clean Energy), attorneys around the state, and historic preservation advocates—is engaged on every front to give the public and decision makers a full understanding of the plant's economic and environmental impacts.

SEE MAP OF LOCAL LANDOWNER OPPOSITION TO THE HIGHWOOD GENERATING STATION *(750 K pdf)*

2008 HIGHWOOD DEVELOPMENTS:

- **MEIC Files Suit over Highwood's Carbon Dioxide Emissions**
- **Yellowstone Valley Electric Co-op Kicked Out of Highwood Project**
- **MEIC Wins Landmark Air Pollution Victory against Highwood**
- **MEIC and Farmers Sue Cascade County for Illegal Spot Zoning—Again**
- **Montana Coal-Power Project Dealt Blow by State Regulators** — Developer must "go back to the drawing board" for part of its air permit *(Energy Prospects West, April 29, 2008)*
- **MAJOR SETBACK FOR HIGHWOOD PLANT: Electric co-op won't get USDA funds for proposed power plant** *(Great Falls Tribune, March 9, 2008)*
- **Montana Board of Environmental Review Rejects CO2 Controls, Delays Decision on Particulates, for Highwood Plant**

IN THE NEWS

- **CO2 Ruling could spell trouble for coal plants** *(Great Falls Tribune, November 14, 2008)*
- **State issues Highwood modified air-quality permit** *(Great Falls Tribune, November 11, 2008)*
- **Washington utility nixes power purchase** *(August 29, 2008)*
- **Judge was right to open city's draft documents** (Great Falls Tribune editorial, *July 20, 2008).* Read the court decision *(766 KB pdf).* **Watch the video** of KFBB's news report, "Citizens want Highwood Documents from Great Falls"
- **State asked to make rule for fine emissions** *(July 16, 2008)*
- **Highwood plant foes slap DEQ with lawsuit** *(July 1, 2008)*
- **Board sets high bar for particulate emissions for Highwood Station** *(May 31, 2008)*
- **Great Falls to re-evaluate power plant** *(May 18, 2008)*
- **Highwood plant group pushes out Billings co-op** *(April 29, 2008)*
  - *Listen to Montana Public Radio story in which MEIC's Anne Hedges is interviewed.*
- **Major player says it's pulling out of Highwood Generating Station project** *(April 28, 2008)*
- **Lawsuit asks judge to toss zoning** *(April 12, 2008)*

2007 Developments

- **MEIC and Other Groups Challenge Federal Subsidies For Dirty New Coal Plants**
- **MEIC Appeals Highwood Air Pollution Permit**
- **Opposition to Locating Highwood within National Historic Landmark**

Northeast U.S. Blackout 2003

60 Million Citizens in the dark, $6B-$10B in economic losses, multiple deaths.

Lights Out In 2009?

A Critical Analysis of

The Threat of Major Blackouts Facing the U.S.

What Is Needed To Maintain Grid Reliability Through 2016

The Major Barriers To Keeping The Lights On

Conducted by

The NextGen Energy Council

Management Information Services, Inc.

September 2008

NextGen
Energy
Council

Contents

Study conducted by:
Management Information Services, Inc.
NextGen Energy Council

Available On the Web:
www.nextgenenergy.org

Preface

A September 2008 story by Mark Williams of the *Associated Press*, entitled, "**U.S. on Verge of Grand-Scale Blackout,**" did not get a great deal of attention from policymakers, the news media or the public.[1] It should have.

It began this way:

> *"Five years after the worst blackout in North American history, the country's largest utilities say the U.S. power system faces the prospect of even bigger and more damaging outages. The specific flaws that led to 50 million people losing power in 2003 have largely been addressed, they say, but even bigger problems loom."*

The experts interviewed by Williams all agreed that, if left unchecked, the "bigger problems" looming could well compromise the fundamental integrity of the nation's electricity grids.

> *"I'm really not a 'Chicken Little' player, but I worry that no one seems to be focusing in on [the threat of another major blackout]," said Michael Morris, Chairman, President and Chief Executive of American Electric Power, which runs the nation's largest electricity transmission system.*
>
> *"The level of excess capacity has shrunk ... to a level barely within the planning toleration of the industry," said Marc Chupka, with the Brattle Group, an energy consultant.*
>
> *Rick Sergel, President of the North American Electric Reliability Corp., the agency that oversees the nation's power grid, said, "We're to the point where we need every possible resource: renewables, demand response and energy efficiency, nuclear, clean coal — you name it, we need it. And we especially need the transmission lines that will bring the power generated by these new resources to consumers."*

The threat to the U.S. electricity grid — a threat that goes to the heart of social stability, economic security and national security — is real and imminent. Yet few national and state elected officials seem aware of it. We hope this report will begin to change that.

Bob Hanfling
Chair
NextGen Energy Council
September 2008

Executive Summary

This report draws from the latest available information compiled by the nation's leading experts on the status of the U.S. electricity grid. It is designed to present a factual, dispassionate and unbiased view of the current health and viability of the grid. It seeks to separate facts from opinion and wishful thinking. It analyzes the barriers to increased investment in America's electricity infrastructure. And it presents estimates on what inaction may cost.

The findings of this analysis are sobering, to say the least. This Executive Summary highlights just a few of this report's findings.

It is the NextGen Energy Council's hope that every policymaker with responsibility over aspects of our nation's electricity grid reads this report fully.

Major Findings

★ The U.S. faces potentially crippling electricity brownouts and blackouts beginning in the summer of 2009, which may cost tens of billions of dollars and threaten lives. Unless major investments are made immediately in both electricity generation (power plants) and transmission (power lines), the threat of service interruptions will increase.

★ If vulnerable regions, such as the Western U.S., experience unusually hot temperatures for prolonged periods of time in 2009, the potential for local brownouts or blackouts is high, with significant risk that local disruptions could cascade into regional outages that could cost the economy tens of billions of dollars.

★ U.S. baseload generation capacity reserve margins have declined precipitously to 17 percent in 2007, from 30-40 percent in the early 1990s. A 12-15 percent capacity reserve margin is the minimum required to ensure reliability and stability of the nation's electricity system.

★ Compounding this capacity deficiency, the projected U.S. demand in the next ten years is forecast to grow by 18 percent, far exceeding the projected eight percent growth in baseload generation capacity between now and 2016.

★ In total, the U.S. will require about 120 gigawatts (GW) of new generation just to maintain a 15 percent reserve margin.

★ Using data from the North American Electric Reliability Corporation (NERC), we estimate that the U.S. will require more than 14,500 miles of new electricity transmission lines by 2016.

Regions represented by the Florida Reliability Coordination Council (FRCC) and the Northeast Power Coordinating Council (NPCC) may require less than 400 miles of new transmission lines, while the Southeast Reliability Council (SERC) may require nearly 2,300 miles. The Western Electricity Coordinating Council (WECC) may require nearly 7,000 miles.

★ Investments in new generation and transmission required by 2016 will be a minimum of $300 billion dollars. This may be a conservative estimate, and actual costs could be much higher.

★ With growing nationwide reliance on natural gas for new baseload electricity generation, disruptions in the supply or delivery of natural gas could have a significant impact on the reliability and cost of electricity in a number of regions.

★ While renewable energy proponents, and some elected officials, are saying that the U.S. needs to only add renewable power facilities such as wind farms, the annual capacity factor of wind generators is typically about 25 - 35 percent. However, the probability that wind generators are available at their rated value during annual peak periods is only between 5 - 20 percent and varies greatly from year to year and region to region. Wind cannot be considered a reliable baseload capacity resource.

★ In the West, activist groups are pressuring government regulators to limit access to the region's high-voltage transmission grid to large baseload technologies such as coal. They propose favoring non-baseload, intermittent power facilities such as wind and solar, which will decrease the stability and reliability of the entire Western grid.

★ The major impediments to strengthening the nation's electricity infrastructure and maintaining grid reliability are:

1. Lawsuits by environmental groups against power plants, transmission lines and natural gas production;
2. Regulatory uncertainty tied to federal and state climate change policies;
3. Challenges associated with integrating more intermittent power sources on the transmission grid;
4. Reluctance by state regulators to approve rate increases related to the imposition of new environmental or climate-related regulation; and
5. The relatively shorter-term approach to resource planning and acquisition that industry has been forced to adopt because of all of the above factors.

★ Of these impediments, the single biggest threat to system reliability is opposition from well-funded environmental groups that oppose and file lawsuits against virtually every new electricity project proposed.

Introduction

Affordable and readily available electricity plays a critically important role in the U.S. economy.

Economic growth and electricity usage are closely related, and electricity has enabled virtually every technological achievement of the past 100 years, transforming industry, commerce, agriculture, transportation, medicine and communications.

The National Academy of Engineering has designated electrification as "the engineering feat with the greatest impact on quality of life in the 20th century."[1]

Numerous studies have found that a nation's wealth and well being are closely related with per capita energy use and electricity consumption – as illustrated in Figure 1.

Certainly, many of the technological advances that appear possible in the 21st century are in areas such as nanotechnology, communications and the biosciences that will depend on a reliable supply of affordable electricity.

However, unless immediate and substantial investments are made in baseload generation and transmission systems, the reliability of the country's electricity system will be in jeopardy. The West is particularly vulnerable, with California, the Rocky Mountains and Southwest facing supply uncertainty and potential brownouts and blackouts as early as the Summer of 2009.

Should these areas experience unusually hot temperatures for prolonged periods of time in 2009, the chance of brownouts or blackouts is high, with significant risk that local disruptions could cascade into major regional outages.

The North American Electricity Reliability Corporation (NERC) has urged officials to encourage substantial investment in long-term bulk power system projects over the next eight years to avoid serious interruptions in the supply of electricity, with potentially devastating consequences to the nation's economic health.

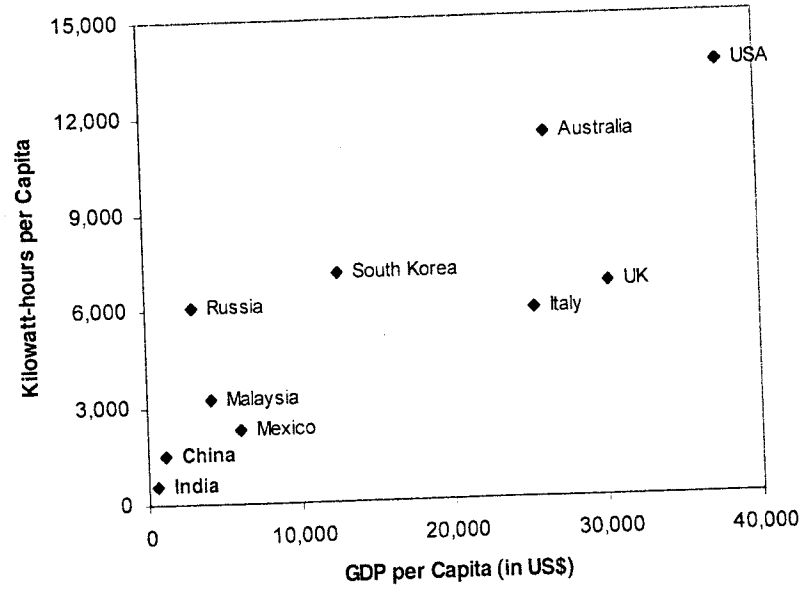


Figure 1: Electricity Usage Per Capita
Source: United Nations' *Human Development Report, 2005.*

The Grid Is In Trouble

Adequate supply and a robust transmission system are essential both for the day-to-day functioning of the U.S. economy and to gain maximum benefits from potential future economic growth.

However, supply and transmission systems in the U.S. are quickly dipping toward minimum reliability thresholds.

In short, the U.S. faces serious capacity and transmission problems. In particular, the West's regional electricity grid, known as the Western Interconnection, is in trouble.

U.S. Capacity Requirements

In its October 2007 study, "*2007 Long-Term Reliability Assessment*," NERC came to some disturbing conclusions. It found that:

- Long-term capacity margins on the nation's transmission systems are inadequate to protect these systems from interruptions such as brownouts or blackouts. Absent immediate investments, this condition will worsen over the next decade;
- Projected increases in peak demand for electricity exceed projected additions of generation capacity; and
- The areas of greatest concern are California, the Rocky Mountain states, New England, Texas, the Southwest, and the Midwest.[2]

NERC found that U.S. baseload generation reserve margins have declined precipitously to 17 percent in 2007 from 30-40 percent in the early 1990s. A 12-15

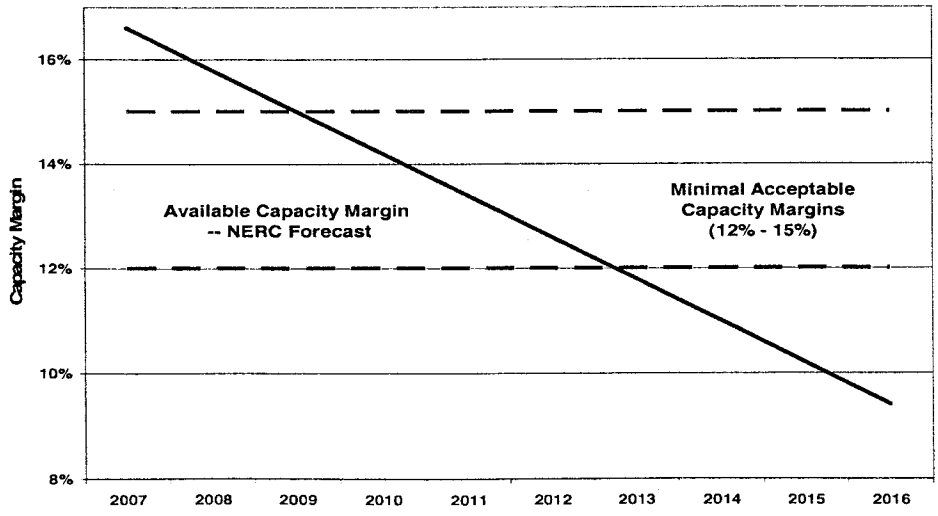


Figure 2: NERC Forecasts of U.S. Electricity Capacity Margins

Sources: NERC *2007 Long-Term Reliability Assessment*, October 2007, and Management Information Services, Inc.

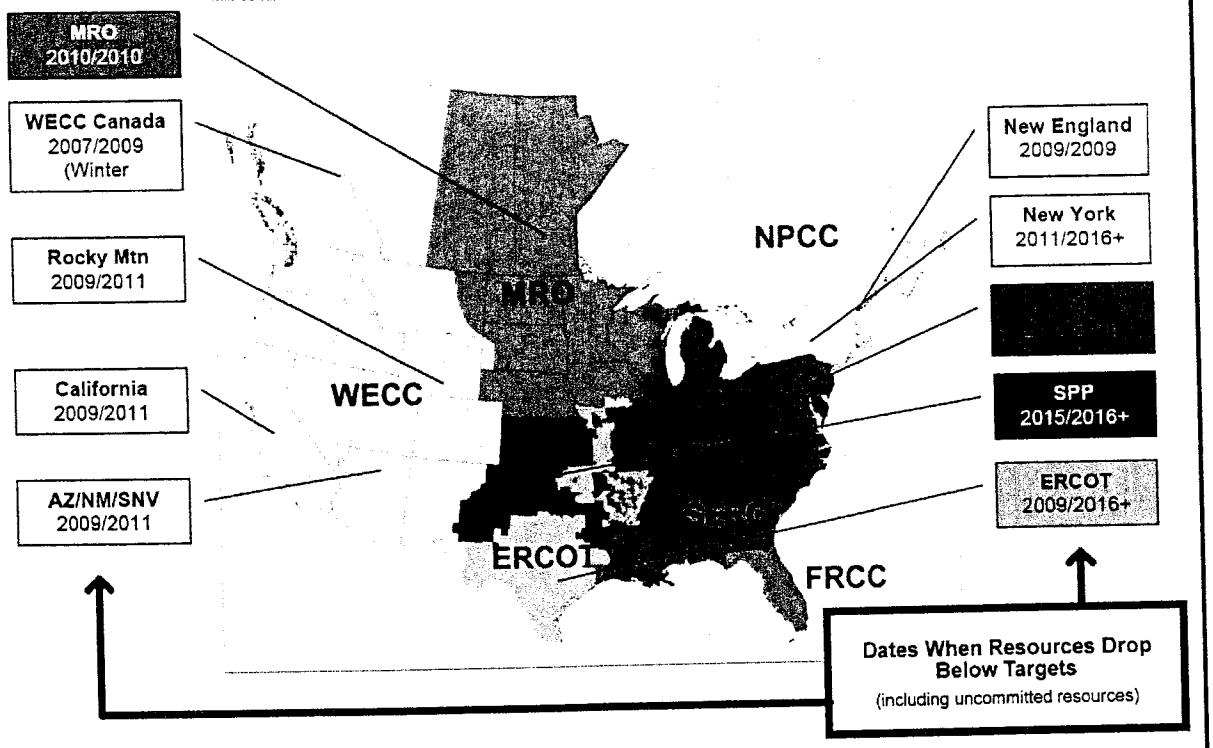


Figure 3: NERC Forecasts of U.S. Electricity Capacity Margins

Source: NERC *2007 Long-Term Reliability Assessment*, October 2007

percent reserve margin is the minimum required to maintain the stability of the nation's electricity system.

Further, NERC forecasts that capacity margins will fall below minimum acceptable levels by 2010. As illustrated in Figure 2 *(on proceeding page)*, U.S. capacity margins will begin to decline to unacceptable levels in 2009 and the situation may become critical by 2013.[3]

While the national situation provides ample cause for concern, NERC found that the situation is even more critical in certain regions. As Figure 3 shows[4], supply margins become critical in:

- WECC (Rocky Mountains) in 2009;
- ERCOT (Texas) in 2009;
- California in 2009;
- NPCC (New England) in 2009;
- Arizona, New Mexico, and Nevada in 2009; and
- MRO (Midwest) in 2010.[5]

Approaching the minimum capacity margins makes the systems vulnerable to blackouts and brownouts.

Compounding this situation, demand in the next eight years across the nation is forecast to grow by 18 percent, far exceeding the eight percent projected growth in baseload generation capacity between now and 2016.

NERC concluded that officials and regulators must encourage substantial investment in long-term bulk power system projects over the next eight years to avoid serious interruptions in the supply of electricity.

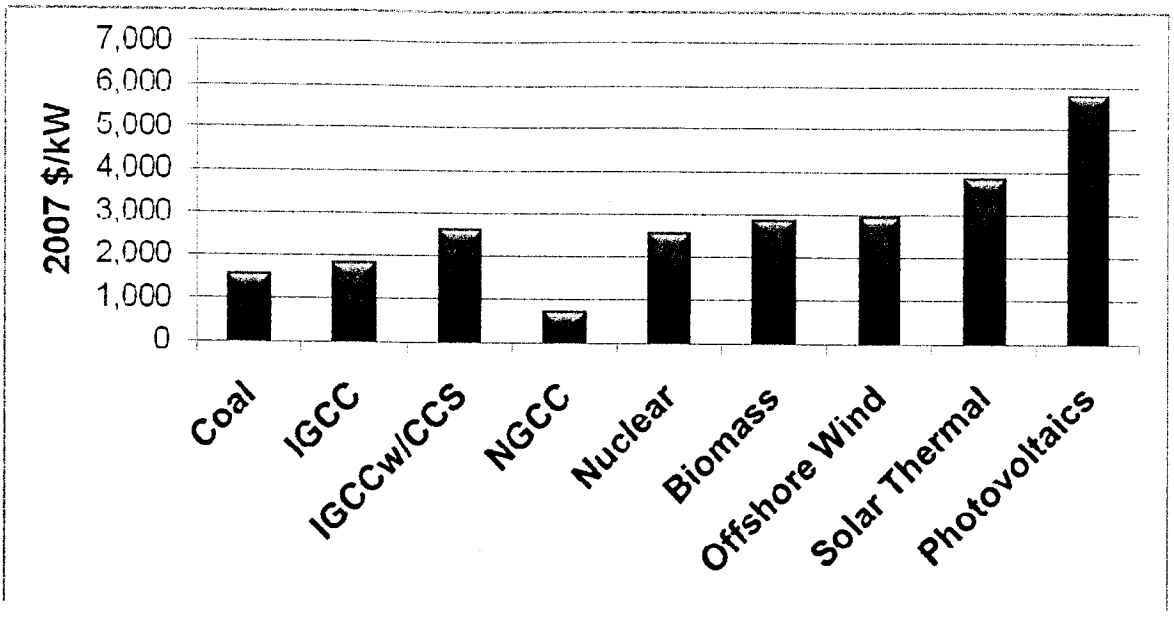


Figure 4: Estimated Costs of New Electric Generation

Sources: U.S. Energy Information Administration and Management Information Services, Inc, 2008

Generation Options

The form new electricity generation will take is not clear, but, as illustrated in Figure 4, the costs of new generation differ significantly among technologies and fuel sources. The latest estimates from the U.S. Energy Information Administration (EIA) on installed capital costs are as follows: natural gas combined cycle (NGCC) costs about $750 per installed kilowatt (kW); coal costs about $1,600/kW; nuclear costs nearly $2,600/kW; solar thermal costs nearly $3,900/kW; and photovoltaics cost more than $5,800/kW.[6] Thus, the portfolio of new generation technologies actually installed will largely determine the eventual costs, and costs could differ by a factor of three or four (or more) depending on the generation mix.

> In total, the U.S. will require about 120 GW of new generation just to maintain the minimum 15 percent capacity margin required for system reliability.

The requirements for new capacity necessary to maintain a minimum 15 percent margin through 2016 differ by region, as illustrated in Figure 5 *(on the following page)*. Some NERC regions, such as the Midwest Reliability Organization (MRO), Northeast Power Coordinating Council (NPCC), and Southern Power Pool (SPP), may require less than 10 gigawatts (GW) of new capacity, while the Southeast Reliability Council (SERC) may require nearly 40 GW of new capacity.

In total, the U.S. will require about 120 GW of new generation just to maintain the 15 percent capacity margin required for system reliability.

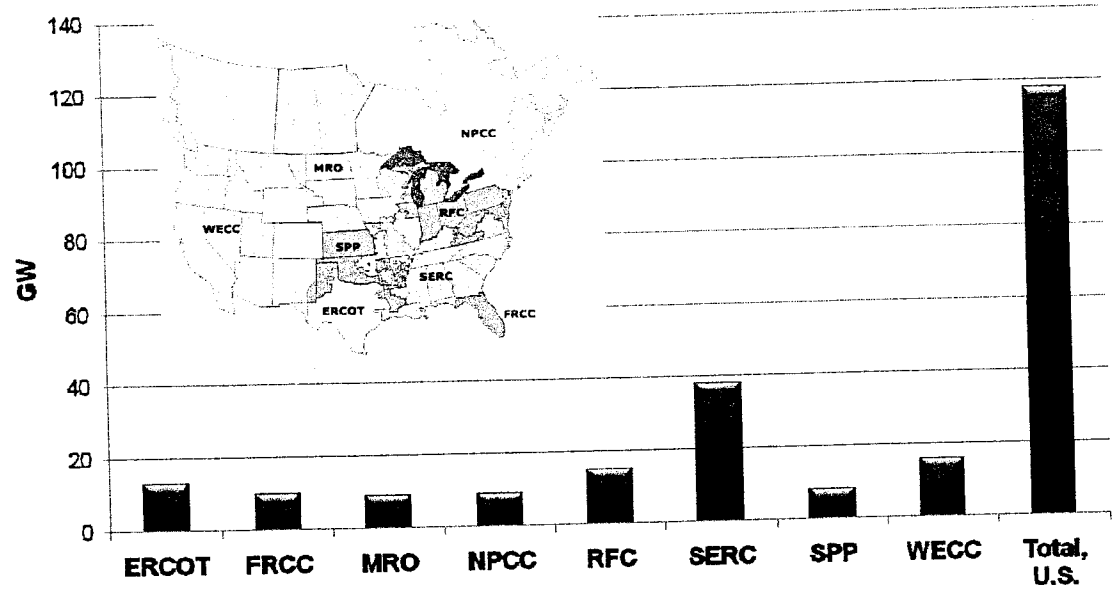


Figure 5: Estimated Required Regional Electric Capacity Additions Through 2016
Sources: NERC 2007 Long Term Reliability Assessment, Oct. 2007 and Management Information Services, Inc.

Transmission Constraints

Significant transmission constraints exist across the U.S. Such congestion occurs when actual or scheduled flows of electricity across a line or piece of equipment are restricted below desired levels, either by the physical or electrical capacity of the line, or by operational restrictions created and enforced to protect the security and reliability of the grid.

Transmission congestion has direct impacts on reliability and the price of energy.

When grid operators are limited by transmission constraints in transferring energy from a more desired source to a load center, they must find an alternative — and often more expensive — source of generation that can be delivered where and when they need it.

Grid operators then re-instruct generation owners on how they should schedule electricity production at specific power plants.

When much of the grid is tightly constrained, operators may have to curtail service to consumers in some areas to protect the reliability of the grid as a whole. All of these actions can raise the price of energy to consumers.

In its major 2006 study, "*National Electric Transmission Congestion Study*" (NETC Study), DOE found that many areas of the U.S. suffer from transmission constraints. DOE identified three levels of congestion: critical congestion areas; congestion areas of concern; and conditional congestion areas.[7]

As shown in Figure 6, the NETC Study found a number of critical congestion areas in both the Western and Eastern Interconnections.

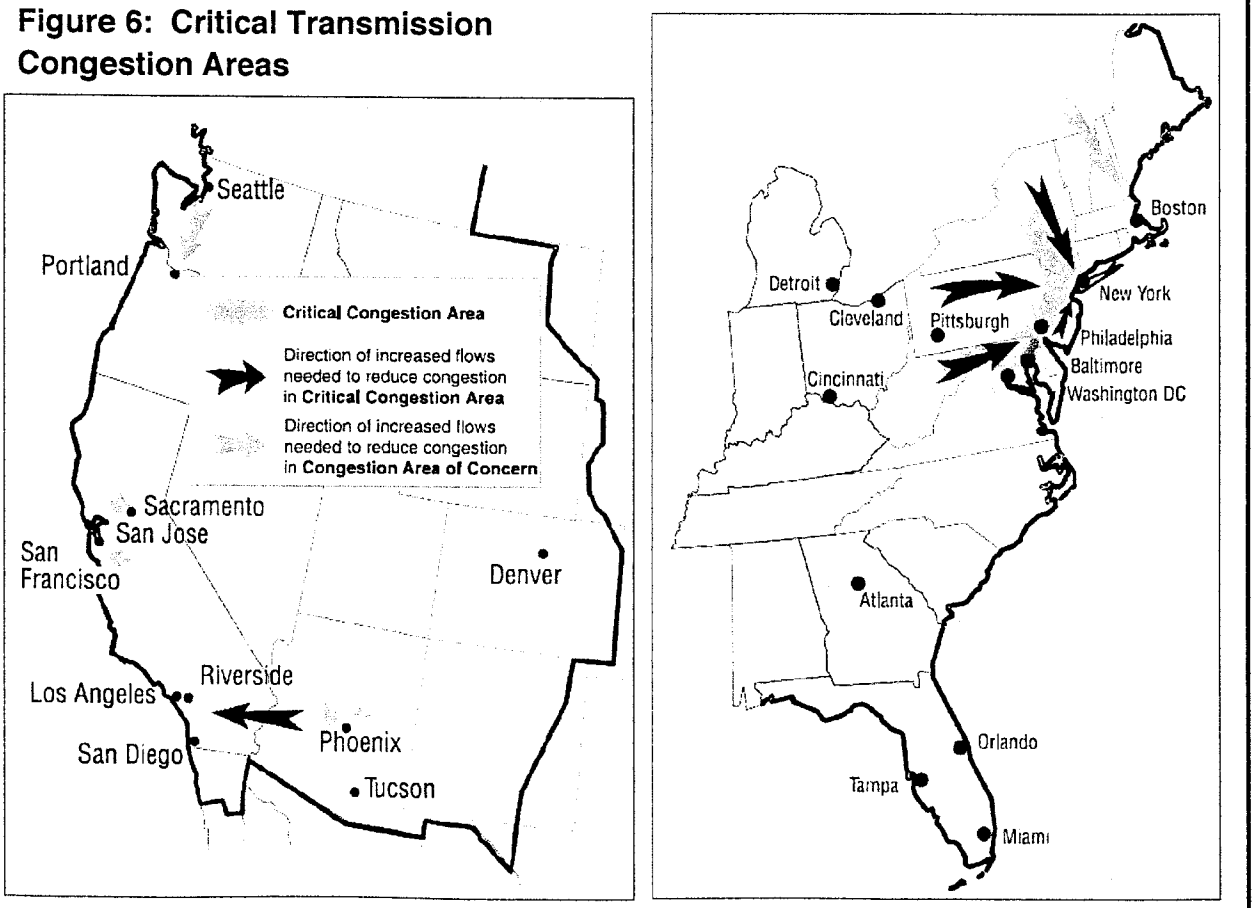
In Figure 7 *(on the following page)*, the NETC study identified the most congested paths shown by its modeling to exist in the Eastern Interconnection. In this analysis, DOE concluded the following:

- Many of the most congested paths are located within regional markets while others cross the boundaries between two markets.
- A significant number of the most congested paths appear on the tie lines between two control areas.
- Given load growth patterns and the size of transmission utility footprints, some of the most congested paths are located within individual control areas, particularly in the Southeast.

Figure 8 *(on the following page)* shows the conditional constraint areas that exist nationally. These congestion areas are defined as those areas "where there is some transmission congestion at present, but significant congestion would result if large amounts of new generation resources were to be developed, without simultaneous development of associated transmission capacity."[8]

This illustrates that the conditional congestion areas identified by DOE are also potential locations for large-scale development of wind, coal and nuclear generation capacity to serve remotely located load centers.

Figure 6: Critical Transmission Congestion Areas



Source: U.S. DOE, *National Electric Transmission Congestion Study*, 2006

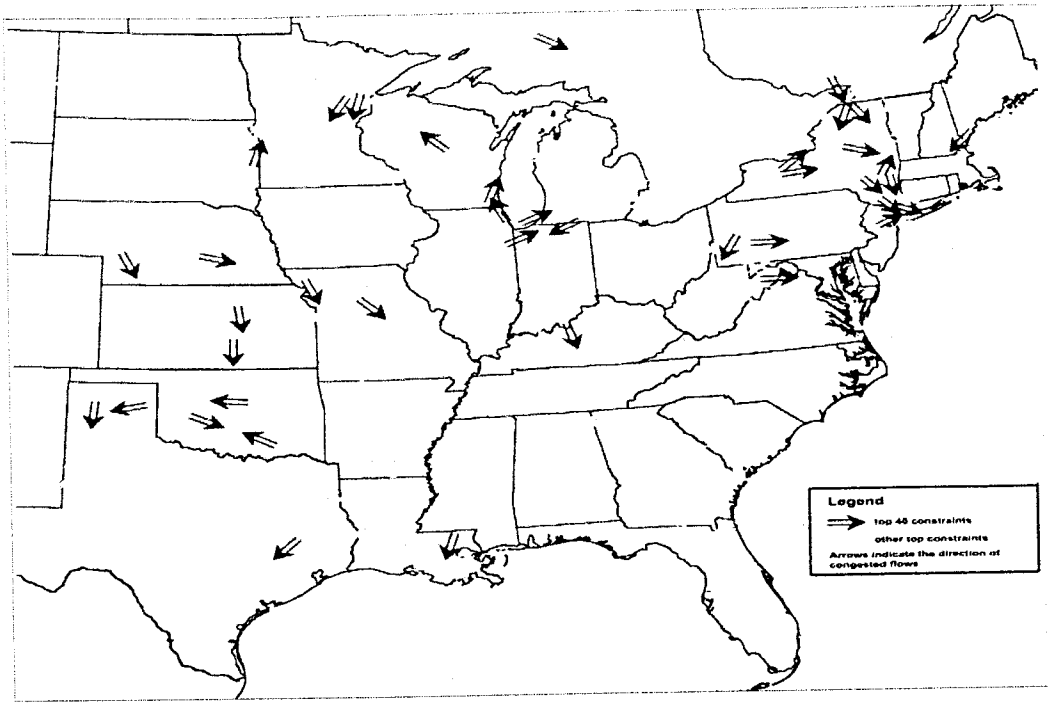


Figure 7: Most Congested Paths In Eastern Interconnection, 2008 Simulation
Source: U.S. DOE, *National Electric Transmission Congestion Study*, 2006

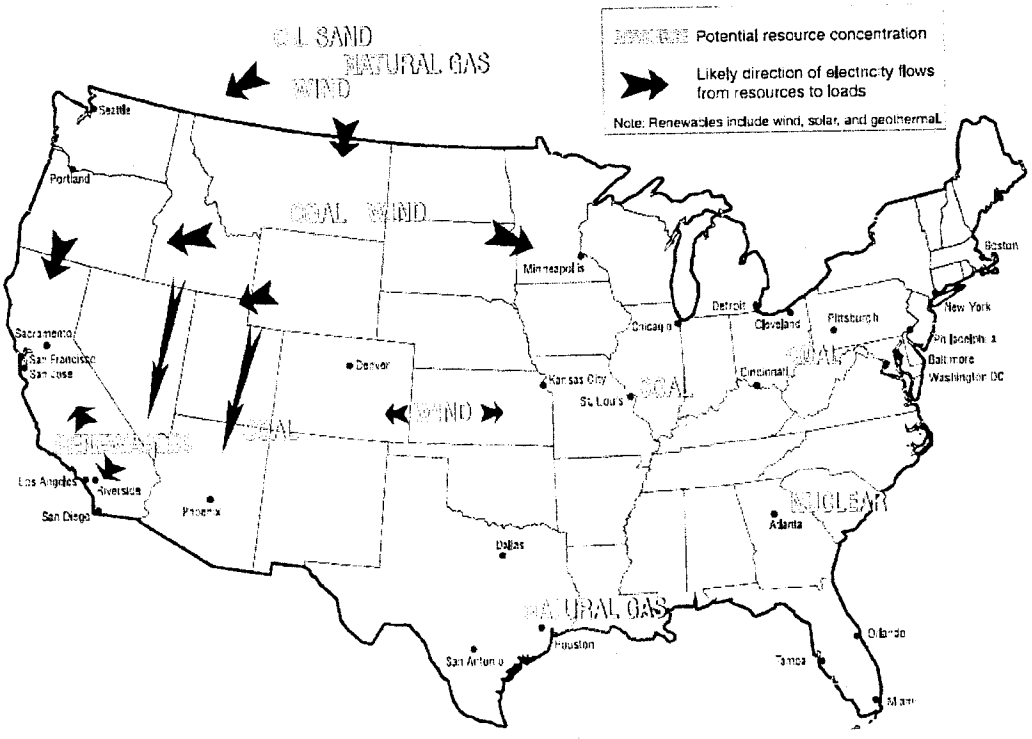


Figure 8: Conditional Constraint Areas in the Eastern Interconnection
Source: U.S. DOE, *National Electric Transmission Congestion Study*, 2006

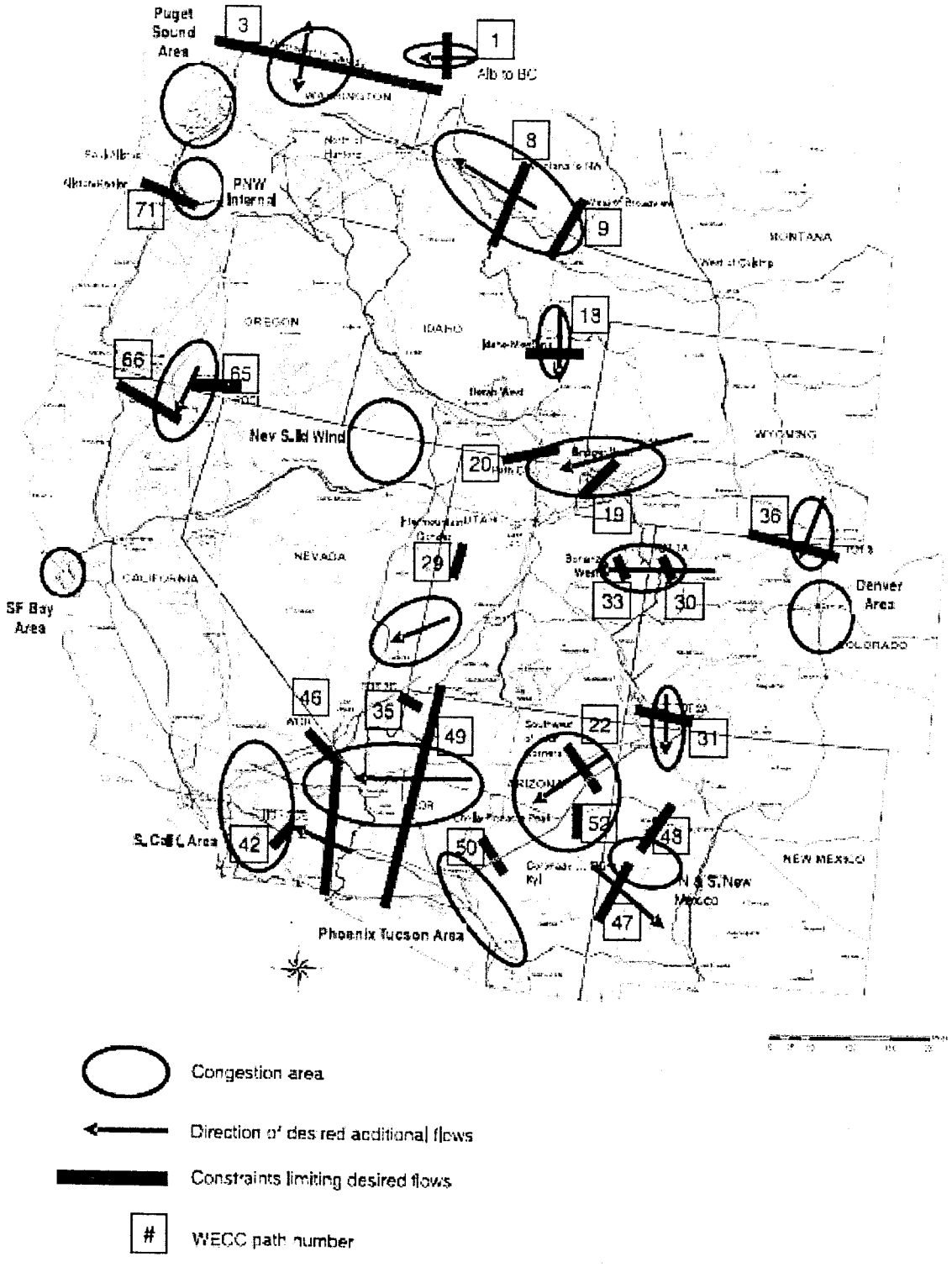


Figure 9: Transmission Congestion Areas in Western Interconnection

Source: U.S. DOE, *National Electric Transmission Congestion Study*, 2006

The map in Figure 9 (on the proceeding page) illustrates how congestion areas in the Western Interconnection can limit the most efficient and desired direction of electricity flow.

How Much New Transmission?

NERC found that:

1. Projected transmission additions lag far behind projected demand growth;
2. Significant investment in transmission is required;
3. Each peak load season puts more strain on the transmission system; and
4. The areas of greatest concern are the Northeast, California, and the Southwest.[9]

Similarly, the U.S. Government Accountability Office found that growth in electricity demand has strained the nation's transmission system, resulting in less flexibility to respond to system problems and an increased risk of potential blackouts.[10]

Using NERC data, we estimate that the U.S. will require more than 14,500 miles of new electric transmission infrastructure through 2016, with transmission requirements differing greatly by region. As illustrated in Figure 10, regions represented by the Florida Reliability Coordination Council (FRCC) and the Northeast Power Coordinating Council (NPCC) may require less than 400 miles of new transmission lines, Southeast Reliability Council (SERC) may require

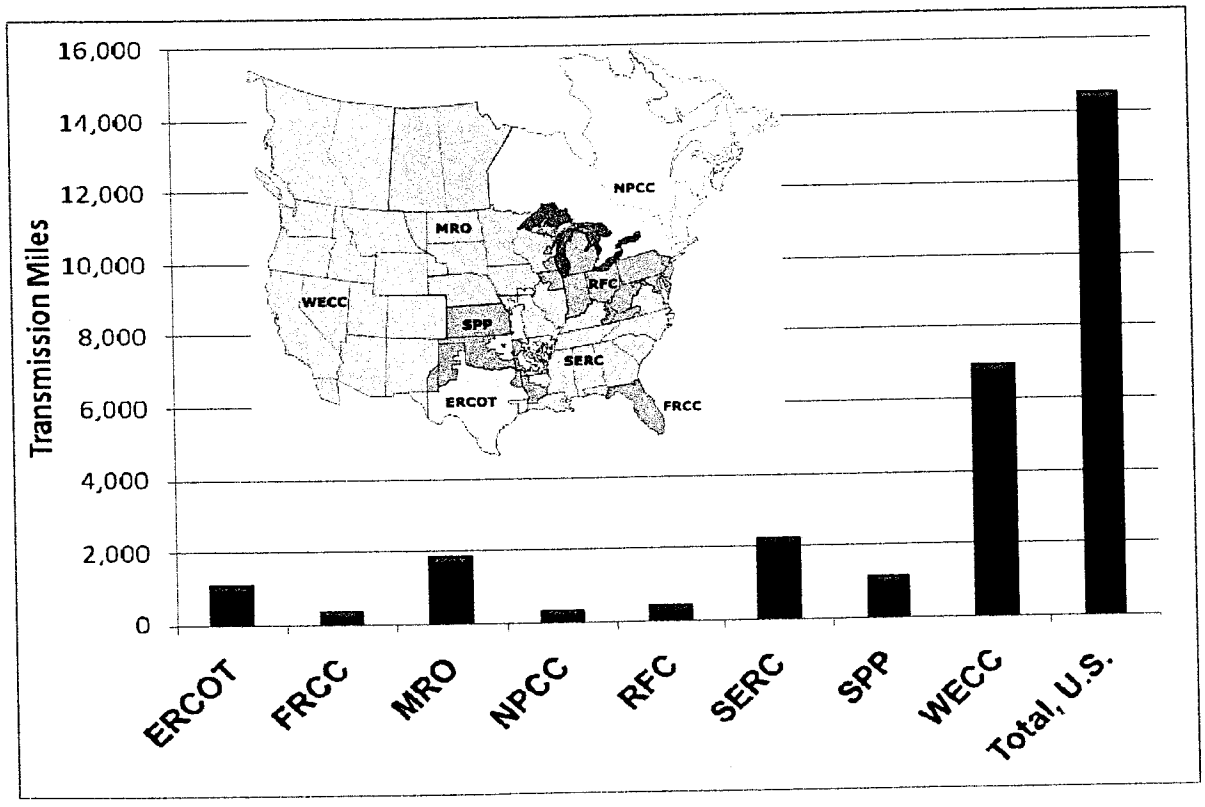


Figure 10: Estimated Required Regional Transmission Additions Through 2016

Sources: NERC *2007 Long Term Reliability Assessment*, October 2007 and Management Information Services, Inc.

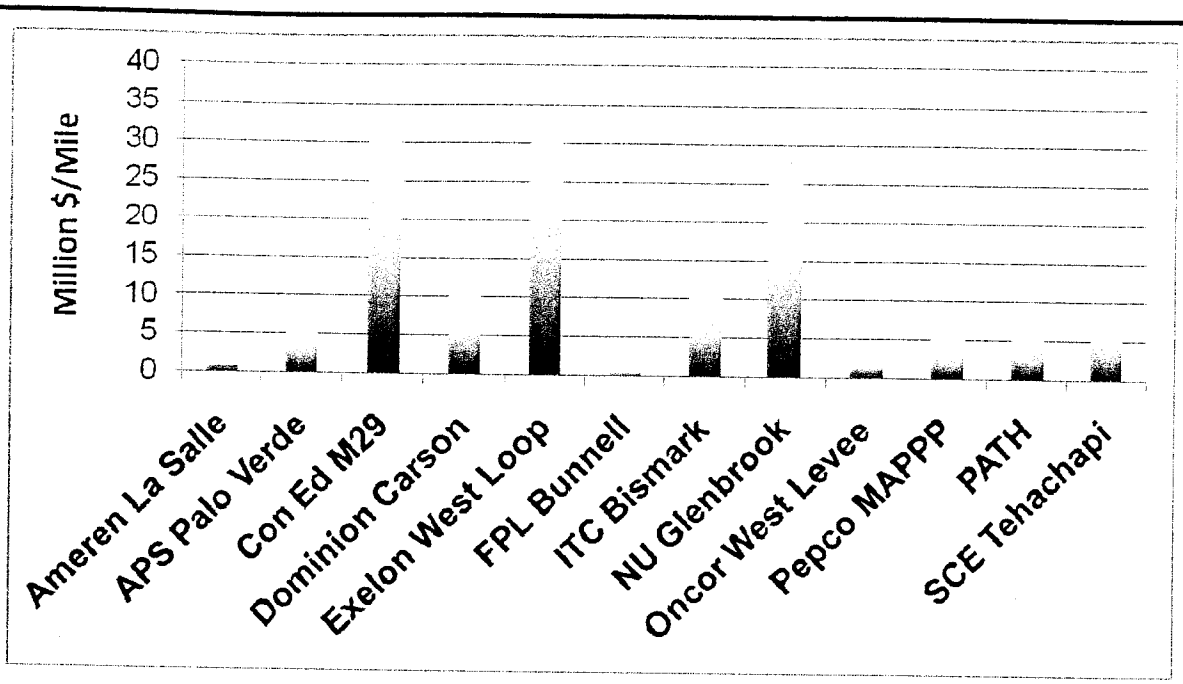


Figure 11: Representative Transmission Line Costs

Source: Edison Electric Institute and Management Information Services, Inc., 2008

nearly 2,300 miles, and Western Electricity Coordinating Council (WECC) may require nearly 7,000 miles.[11]

Estimating the cost of new transmission lines is difficult, since costs differ greatly depending on factors such as regulation, regional factors, location factors (e.g., urban, suburban, rural), size of line, type of line, access and so on.

To estimate representative costs, we relied primarily on two sources. First, we analyzed recent estimates provided by utilities and public utility commissions, and available in the literature.[12]

Second, we utilized an Edison Electric Institute (EEI) report that summarized a variety of transmission investment projects that are presently being planned and undertaken by EEI's members.[13] This report identified representative projects covering several key categories of transmission that are representative of new transmission investments in the electric industry.[14]

Our analysis indicated that the per-mile costs of new transmission lines can vary by a factor of 30 or more (as shown in Figure 11).

For example, the FLP Bunnell-St. Johns project has an estimated cost of $1 million/ mile, the Ameren LaSalle County project has an estimated cost of $2 million/mile, and the Oncor (formerly TXU) West Levee project has an estimated cost of $3 million/ mile. On the other hand, the Con Ed M29 project has an estimated cost of nearly $32 million/mile and the Exelon West Loop project has an estimated cost of nearly $35 million/mile.[15]

Examples From Other Nations

Generation and transmission constraints, and the resulting crippling electric power shortages, are already occurring in many countries. These

experiences should provide a cautionary note for the U.S. For example:

- In South Africa, a years-long electric power crisis is escalating, as rolling brownouts and blackouts harm the economy (mining production has decreased 10 percent), and no solution is seen for five years.[16]
- The United Kingdom faces massive near-term power shortages and electricity rationing, with predictions of widespread energy poverty and "social disorder."[17]
- In Indonesia, power shortages have caused the government to require industries to work on weekends, and new business investment has been curtailed.[18]
- In India, some regions are experiencing 20 percent power deficits with power available only 12 hours a day.[19]
- In Pakistan, power shortages have resulted in "electricity riots" leaving people dead and injured.[20]
- In Burma, Rangoon is blacked out frequently at random, and peoples' desperate use of electricity when it is available is exacerbating the problem.[21]

Persistent Blackouts in Pakistan Lead To Civil Unrest

Karachi (AP) — Employees of Water and Power Development Authority chant slogans during a rally in Multan, Pakistan on Tuesday, April 15, 2008. Hundreds of utility workers in the Pakistani city of Multan have threatened to cut off power after their office was ransacked and staff beaten by a crowd angry over persistent blackouts.[22]

Generation Barriers

There is no question that the U.S. needs significant new baseload electricity generation in order to maintain grid reliability as demand grows.

In fact, as Figure 13 shows, U.S. electricity demand is expected to far outpace expected growth in electric generating capacity.

But there are a variety of barriers that stand in the way of adding the new baseload electricity generation that is needed to maintain the reliability of the grid.

One problem is that the electric utility industry has been pushed by regulators toward a relatively shorter-term approach to resource planning and acquisition, and increased reliance on unspecified, undeveloped, or uncommitted resources to meet projected demand.[22] This trend has been made possible by shorter plant construction times -- especially for natural gas plants.[23] However, short-term planning cannot substitute for long-range strategies for modernization and expansion of the bulk power system. A focus on short-term planning does not result in the efficient design and construction of the grid of the future, and does not provide the long-range viability and certainty needed regarding reliability.

High reliance on natural gas is increasing the risk of supply and delivery interruptions. Nineteen percent of the U.S. electric industry's generation capacity is powered by natural gas, and this may increase to 22 percent over the next decade.[24]

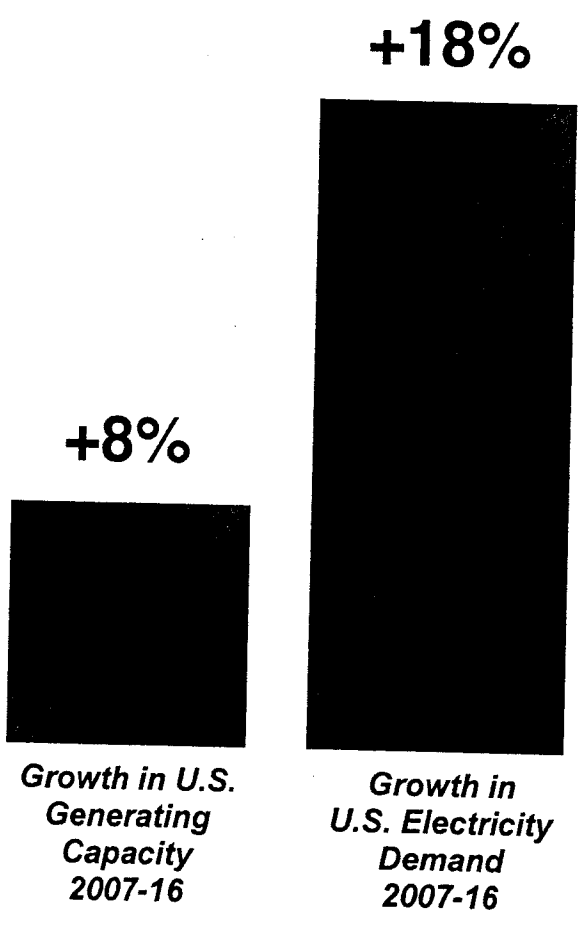


Figure 13. U.S. Electricity Demand is far outpacing generation growth

Source: Source: NERC 2007 Long-Term Reliability Assessment, October 2007

In Texas, this dependency is much higher, projected to grow close to 58 percent by 2016.[25]

Florida, California-Arizona-Southern Nevada, and the Northeast are also highly dependent on natural gas for electricity generation. With growing reliance in the Southeast, disruptions in the delivery of natural gas could have a significant impact on the availability of electricity in a number of regions.

Natural gas has become the "fuel of choice" for new generation, and some states have placed a moratorium on building new coal plants.[26] These trends are expected to continue over the next several years, further increasing the number of new natural gas plants in areas with an already high dependence.

Resource planners in areas with high dependence on natural gas for electricity generation are being forced to take into account the potential for gas delivery interruptions in their overall assessments of supply adequacy and to anticipate the potential impacts of gas supply or delivery interruptions during periods of high gas demand for other uses. High dependence on natural gas presents risks to the adequacy of electricity supply. If fuel options become limited, energy security and fuel supply vulnerability risks are increased, and a balanced fuel-mix must be available to withstand supply disruptions.

Canadian natural gas imports into the U.S. are forecast to begin declining by 2010, and this will leave a gap in available supply amid growing demand from space heating and new agricultural and industrial processes.[27] This gap can only be filled by new supplies of imported LNG, which will require the siting and construction of LNG terminals. However, this terminal infrastructure is facing delays in most locations where it has been proposed.[28] Further, importing LNG opens the U.S. fuel supply to the global market and to all of the economic and political risks associated with it, such as those that have faced global oil markets.[29] It also presents risks to the supply chain, such as weather events that could delay shipments for weeks.

With growing reliance on natural gas across the nation for baseload electricity generation, disruptions in the supply or delivery of natural gas could have a significant impact on the availability of electricity in many areas.

Another development that could adversely affect future capacity margins is the EPA's July 2007 suspension[30] of its Phase II, Section 316(b) of the Clean Water Act[31] rules regarding cooling water intake structures and thermal discharges of once-through cooled power plants. Retrofitting existing power plants with cooling towers could reduce the capacity of those plants, which would exacerbate electric supply concerns. In some cases, retrofits may prove so costly that plants will be retired earlier than projected, with the consequent loss of the plant's entire capacity. At a time when large additional electricity generating resources are needed, the loss of existing generating capacity would undermine U.S. efforts to meet the growing electricity demand.

Greenhouse gas (GHG) emissions regulations are being promulgated by many states, and 25 states have mandated that renewable energy, such as wind, solar, and biomass, must comprise up to 30 percent of a utility's energy portfolio in five to 15 years.[32] In addition, numerous GHG control bills have been introduced in the U.S. Congress.[33] These GHG initiatives can negatively impact the bulk power system in various ways; for example:

- Investment risks caused by regulatory variability can delay construction of adequate generation. In fact, in recent years development of numerous coal plants has been deferred or canceled,[34] and this lack of new capacity will make itself felt over the next decade throughout the U.S. (see Figure 12)
- Generation can become unavailable due to emission limitations impacting system adequacy during years where higher than expected availability of emission-limited units is required. Unavailability of Reliability Must Run (RMR) units can reduce real and reactive power supplies, thus worsening system conditions.
- Renewable resources provide energy, but may not be available at full capacity to serve peak load requirements.

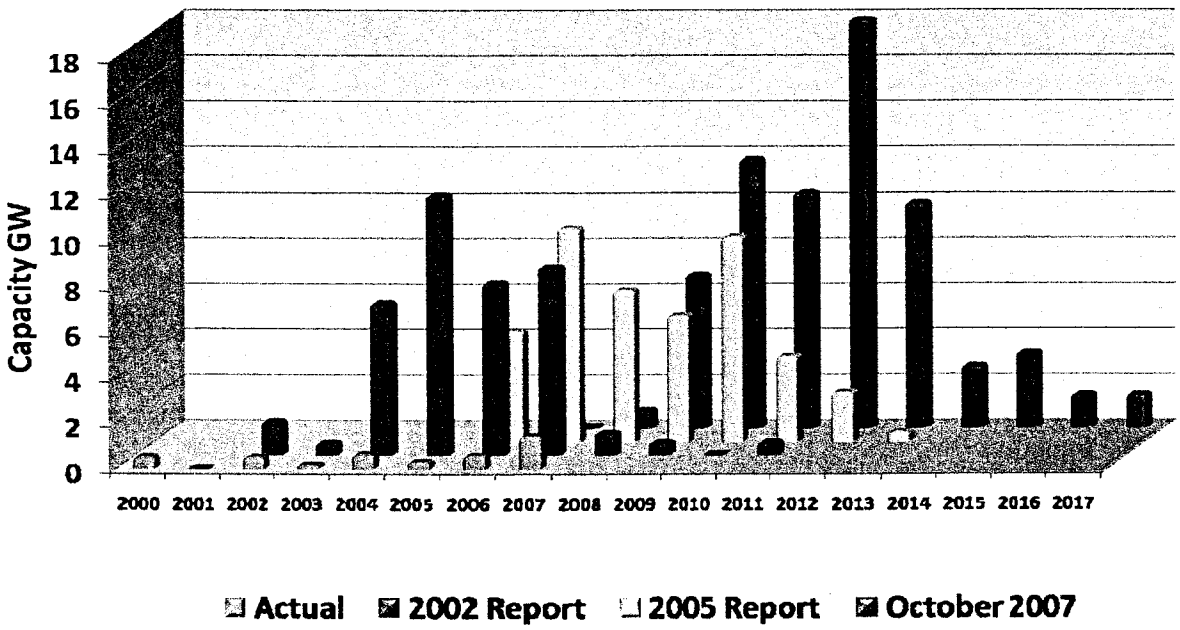


Figure 12. Power Plant Construction Delays Impact System Reliability

Historically, actual capacity has been shown to be significantly less than proposed capacity. For example, the 2002 report listed 11,455 MW of proposed capacity for the year 2005 when actually only 329 MW were constructed.

Source: 2007 data, Global Energy Decisions—Velocity Suite; 2002—2005 data — Previous NETL Tracking New Coal-Fired Plants Reports

Recent state commitments to renewable portfolio standards (RPS) have resulted in substantial increases in wind turbine orders, and new wind capacity has been slowed by a worldwide turbine shortage and local opposition to wind projects. Since wind generation is expected to grow substantially throughout the U.S. (in some locations it is targeted to provide over 30 percent of overall capacity), the integration of intermittent resources into the bulk power system and assessing their impact on reliability and adequacy is becoming increasingly complex and difficult.[35] Traditional analytical tools focused solely on capacity and simplified dynamic models are not sufficient to estimate that impact.

The annual capacity factor of wind generators is typically about 25-35 percent. However, the probability that wind generators are available at their rated value during the annual peak period is only between 5 - 20 percent[36] and varies greatly from year to year and region to region. Therefore, wind generation must be considered an energy resource rather than a capacity resource.[37]

The annual capacity factor of wind generators is typically about 25- 35 percent. However, the probability that wind generators are available at their rated value during the annual peak period is only between 5 - 20 percent . Wind cannot be considered a reliable baseload capacity resource.

Increasing domestic and global demand for key system electrical components, such as transformers, combustion turbines, and wind turbines, is resulting in longer lead times for procuring these components. For example, lead times to acquire large power transformers have increased by 6-12 months over the past year. Longer lead times or, even worse, the inability to obtain infrastructure components when needed, influences bulk power system reliability and adequacy. Electric utilities are being required to plan further ahead to ensure that they can acquire needed components to maintain reliability, but this planning must balance the need for equipment with the uncertainties and risks associated with forecasts of system requirements.

Rapidly increasing demand for steel and copper has caused spot scarcity of the resources required to manufacture key electrical components, and this commodity demand has increased the theft of critical system components. Manufacturers have attempted to eliminate excess inventories and capacity to increase productivity of their assets, but they are reluctant to add more capacity until they can be certain about future industry investments.

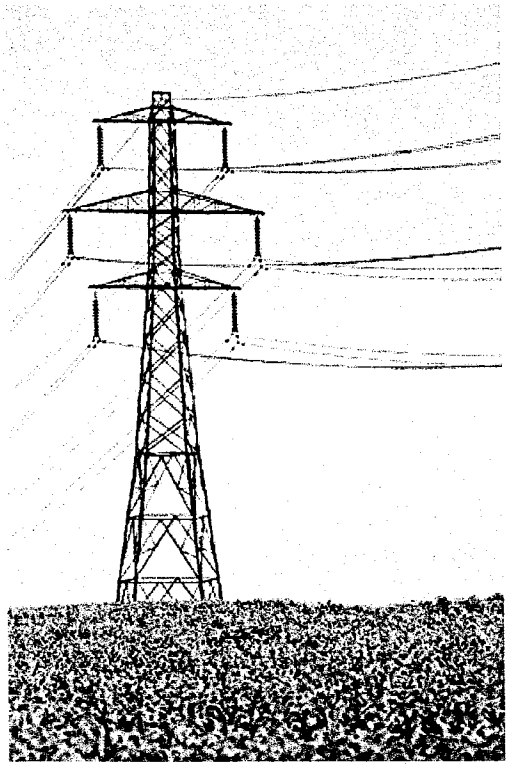
Planned generation reserve levels are generally used by system planners to account for extreme weather and other uncertainties affecting internal demand. However, long-term reliability analysis continues to show decreasing capacity margins along with increasing demand.

Transmission Barriers

The process of siting new transmission is increasingly difficult and expensive due to many factors, including the difficulty of acquiring affordable construction materials; local opposition; environmental challenges; legal battles; and jurisdictional questions, especially when lines are required to cross state borders. Negotiations and litigation can delay and, in some cases, stop important projects from being built. Thus, state and federal government agencies are being forced to factor the impact on inter-state bulk power system reliability into their evaluations, remove obstacles, accelerate siting, and approve permits for transmission line construction. Further, at the same time as internal demand grows, generation unit retirements near cities have increased.[37]

The Nuclear Regulatory Commission (NRC) anticipates that it may receive applications for 32 new nuclear units within the next several years, totaling an additional 12,000 additional MW coming online over the next decade.[38] The design specifications for some of these units are large (over 1,600 MW). Significant investment in transmission is vital to support these large units -- including their larger safety loads following reactor trips -- and ensure that they are reliably integrated into the system. Because of the long lead times for major transmission development and siting, transmission must be initiated sufficiently far in advance to ensure that the transmission system will be ready to accommodate these units when they are licensed for operation.

Wind and solar resources present unique challenges that must be accommodated in the planning, design, and operation of the bulk power system.[39] Additional transmission infrastructure must be developed to reliably integrate these resources. As discussed in the previous section, state RPS mandates and targets are increasing, but renewable resources quantities and types vary considerably from one geographic location to another. Siting of renewable energy systems thus requires knowledge of the specific resource characteristics -- availability, magnitude, and variability -- at any given location. In some cases, especially for wind and solar power, these "fuel" concerns emulate those of other generation technologies, although fossil fuels have greater portability and predictability. The lack of portability and predictability of renewable resources poses great challenges for the electric delivery system.



Nevertheless, regulatory trends have resulted in greater planned use of renewable resources. Much new emphasis is being placed on wind and solar resources in long-term resource planning, especially in ERCOT, SPP, WECC, and MRO, where some states have mandated RPS.[40] This proposed level of commitment to renewables presents significant transmission challenges. For example, renewables are often remotely located, requiring significant transmission links often over challenging terrain. Wind and solar resource variability requires ancillary services such as voltage support, frequency control, increased base-load unit dispatch flexibility, and spinning reserves. In addition, their available generating capacity at times of peak demand is often significantly less than their nameplate capacity. Entities responsible for bulk power system reliability and transmission must take these factors into account to ensure that wind and solar are reliably integrated into the system. Due to the unpredictability and volatility of power flows and the need for broader coordination in planning and operations, the transmission system is becoming more complex, and advanced tools that focus on the boundary of stability, rather than single point analysis, are needed to provide better planning and operating tools.

Transmission systems using significant amounts of wind generation must be designed for economical delivery of wind energy and to support a multitude of wind generation patterns. Traditional peak period analysis of transmission requirements does not represent the variable generation patterns modeling all hours of the year. Full year, hourly simulations of generation variations with the transmission systems modeled is required to ensure that transmission system designs will deliver the renewable resources when they are available.[41]

Additional transmission ties to neighboring areas or throughout the region may be required to accommodate wind resources, and increased operating reserve margins may be needed in areas where significant wind resources are located. In addition, market structures can also impact the amount of operating reserves required to mitigate wind output uncertainty. Adequate transmission is required to provide the import and export capability delivering the system regulation and other transfer schedules required.

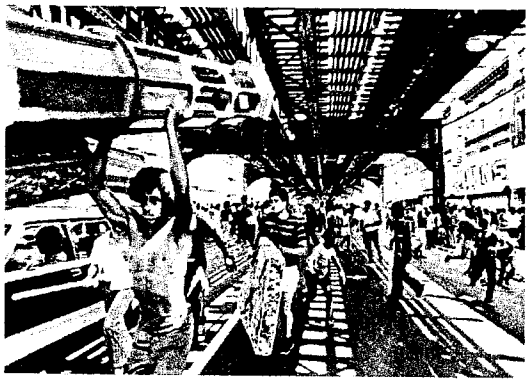
Geographic diversity greatly reduces the influence of wind resource variability as short-term wind energy variability (less than five minutes) is greater than for longer-term (one hour). Additional transmission capacity is thus required to manage generation variability over a large area. Further, wind technologies do not follow load variations well. Dealing with these variations can be challenging, especially if units fueled by different sources are close to their minimum loading.

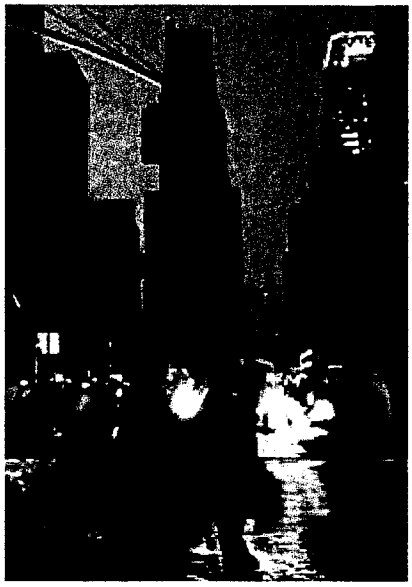
Solar energy resources are also being deployed on the grid. Their variability relates to energy availability when its major fuel supply, the sun, is covered either by dense cloud cover or is unavailable at night. Solar power's scalability from distributed generation and larger power station applications presents serious infrastructure challenges, especially for bi-directional feeds of the distributed generation alternatives.

Integrating newly sited, renewable generation, including small distributed energy projects which serve local loads as well as power the grid, will require major construction, upgrading, and rejuvenation of the grid. As learned from problems in Europe, harmonized operations during emergencies is critical to ensure that renewable sources can be dispatched to support system reliability goals.[42]

ELECTRICITY SHORTAGES CAN BE CATASTROPHIC

Scenes from New York City during the August 14, 2003 blackout





Political Barriers

In addition to the many substantial economic, financing, insurance and other hurdles that generation and transmission projects face, there are also political constraints.

Political opposition to energy infrastructure expansion has grown substantially in recent years. Infrastructure additions always involve multiple layers of government and regulatory approvals. Political opposition can grind the gears of government to a halt, preventing even those projects favored by the public — like large wind farms — from becoming a reality.

This opposition is almost always organized and led by self-styled "environmental" organizations. A favorite tactic used by these deep-pocketed groups is to file lawsuit upon lawsuit to slow or stop power plants, transmission projects and fuel development.

The factors that drive these groups to block needed improvements to the grid are many. But one general observation can be made about most of these environmental activist groups: there doesn't seem to be a fossil-fueled plant or a nuclear plant or a hydropower plant or a major transmission line project that they don't find a way of opposing.

For example, here's how one prominent environmental activist characterized his organization's approach to this issue in an interview with the Associated Press this in January 2008:

> *"Our goal is to oppose these [baseload coal] projects at each and every stage, from zoning and air and water permits, to their mining permits and new coal railroads," said Bruce Nilles, a Sierra Club attorney who directs the group's national coal campaign. Nilles said the Sierra Club spent about $1 million on such efforts in 2007 and hopes to ratchet that figure up to $10 million this year."*[46]

> **Opposition to infrastructure projects by environmental groups is the single biggest threat to maintaining the reliability of the North American electrical grid and 'keeping the lights on.'**

Of the several impediments to grid and reliability improvements identified in this analysis, we find that opposition to generation and transmission projects by well-funded environmental groups is the single biggest threat to maintaining the reliability of the North American electrical grid — e.g., keeping the lights on and fueling future economic growth in the U.S. Obstacles related to project finance, regulatory jurisdiction, cost allocation and environmental performance and other economic issues are almost always surmounted as a project moves forward. Political opposition can stop a project cold with virtually no recourse, given that most activist groups are rarely willing to

compromise in a manner that allows a project to proceed to completion.

Recent Trends

A survey of political developments and trends across Western U.S., conducted by the NextGen Energy Council, shows a number of structural political barriers being erected to system reliability. Environmental activists groups are:

- Suing to block the construction of virtually every single baseload coal-fired power plant, in spite of advanced environmental technologies these plants would deploy.
- Threatening to begin suing to block the construction of natural gas-fired power plants.
- Continue to block expansion of new baseload hydropower facilities in the West.
- Gearing up to block construction of any baseload nuclear power plants across the West.
- Pushing for additional endangered species designations, which will make siting and construction of both power plants and transmission lines extraordinarily difficult.
- Working to slow or stop the completion of the two main multi-year, stakeholder-based transmission corridor processes that both Democrats and Republicans in Congress approved as part of the Energy Policy Act of 2005.
- Pressuring government leaders to limit access to the region's high-voltage transmission grid by larger, baseload technologies and, instead, to artificially favor non-baseload, intermittent power facilities (such as wind and solar that will, at some point, further stress the reliability of the entire Western grid.
- Pushing for a massive expansion of federal wilderness and other restrictive public land designations that would severely limit the ability to plan and implement the large-scale transmission necessary to support the Western grid.
- Seeking to reinstate the Clinton-era roadless rule, which will further limit access to public lands for key energy infrastructure development.

Natural Gas Drilling Lawsuits

As political opposition has grown to the construction of baseload power plants fueled by coal and nuclear power, utilities have focused on building natural gas-fired plants to meet both peaking and baseload needs. However, opposition by activist environmental groups continues to grow against production of the natural gas needed to fuel these plants.

A recent survey conducted by the office of U.S. Rep. John Shadegg (R-AZ), shown in the Appendix, lists those legal actions taken by activist environmental groups against projects in several major oil and gas production areas.

Costs Of Blackouts

The economic well-being of a region is directly related to the supply of reliable and affordable electricity.

An analysis was conducted in 2006 on the costs of blackouts by the Colorado School of Mines Engineering School, in conjunction with the Colorado Energy Forum.

Their research was contained in a major report entitled "Colorado's Energy Future."[47] The following content in this section was taken from that study, which can be downloaded here: www.coloradoenergyforum.org.

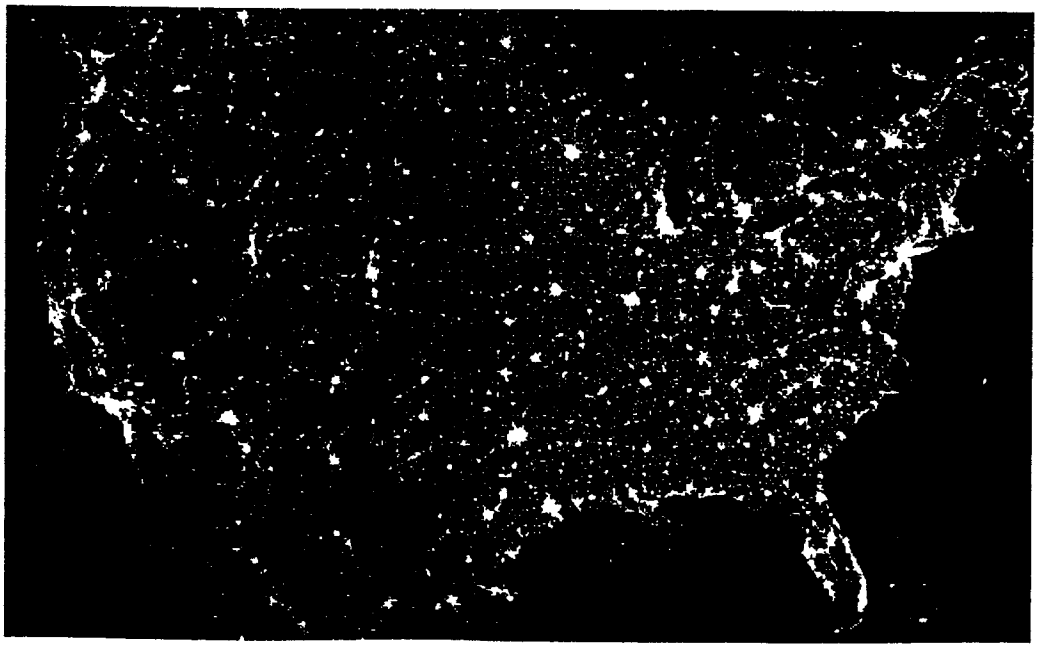
A review and analysis of 24 studies on the costs of outages was done by Lawrence Berkeley National Laboratory (LBNL) in 2003.[48] The results of that review were incorporated along with system reliability data (SAIDI, SAIFI, and MAIFI data) into *national outage costs estimates.*

These estimates resulted in a range from $22 billion to $135 billion annually with a *base case* estimate of $79 billion annually.

For the eight-state Mountain region (AZ, CO, ID, MT, NM, NV, UT and WY), the annual *base case* estimated cost for outages was $6.7 billion (2003 dollars).

In addition to presenting a possible range of costs for outages, the LBNL review found the following:

- There is a wide range of uncertainty in the accuracy of previous national power interruption cost estimates because they extrapolate from small subsets of customers or single geographic regions to the whole nation or use outages occurring at one particular time of day, week or year to represent all outages. Other strategies that introduce inaccuracy include using spending as a proxy for costs.
- The majority of outage costs are borne by the commercial and industrial sectors, and not the residential sector. Although there are important variations in the



composition of customer types within each region, the total cost of reliability events by region tends to correlate roughly with the number of commercial and industrial customers in each region.

- Costs tend to be driven by the frequency rather than the duration of reliability events. Momentary power interruptions, which are more frequent, have a stronger impact on the total cost of interruptions than sustained interruptions, which are less frequent.
- As noted, costs could be as low as $22 billion or as high as $135 billion when considered a reasonable range in the annual duration and frequency of power interruptions, which addresses both gaps in the data for certain regions and possible year-to-year variations in reliability.
- Costs could be as low as $23 billion considering that larger commercial and industrial customers typically experience fewer and shorter interruptions than do residential and smaller C&I customers (this difference results from the design of many utility distribution systems).
- Costs might be calculated to be as high as $119 billion if all reliability events are assumed, as is typical in many studies, to occur during summer weekday afternoons when power usage and costs are high.
- The choice of per-outage-per-customer cost data used as a basis for estimating power interruption costs has a very significant impact on the estimate. Using unadjusted PRS meta-analysis survey cost data with biases toward large industrial customers resulted in an estimate of $378 billion, over five times the initial estimate. This assumption severely overestimates costs because it does not correct for the influence of large industrial customers in the original surveys (compared to the

Table 1 : Estimated State Breakdown of Outage Costs for the Mountain Region

State	*Commercial Consumers*	*Industrial Consumers*	*C&I Region %*	*Outage Cost Est. ($Billion/year)*
AZ Total	258,882	7,419	21.0	1.4
CO Total	343,245	11,875	28.0	1.9
ID Total	88,118	24,659	8.9	0.6
MT Total	93,116	4,634	7.7	0.5
NM Total	126,511	4,010	10.3	0.7
NV Total	130,761	2,889	10.5	0.7
UT Total	102,866	8,865	8.8	0.6
WY Total	55,433	4,278	4.7	0.3
Mountain Region Total	1,198,932	68,629	100	6.7

Source: Colorado Energy Forum, "*Colorado's Electricity Future*," 2006

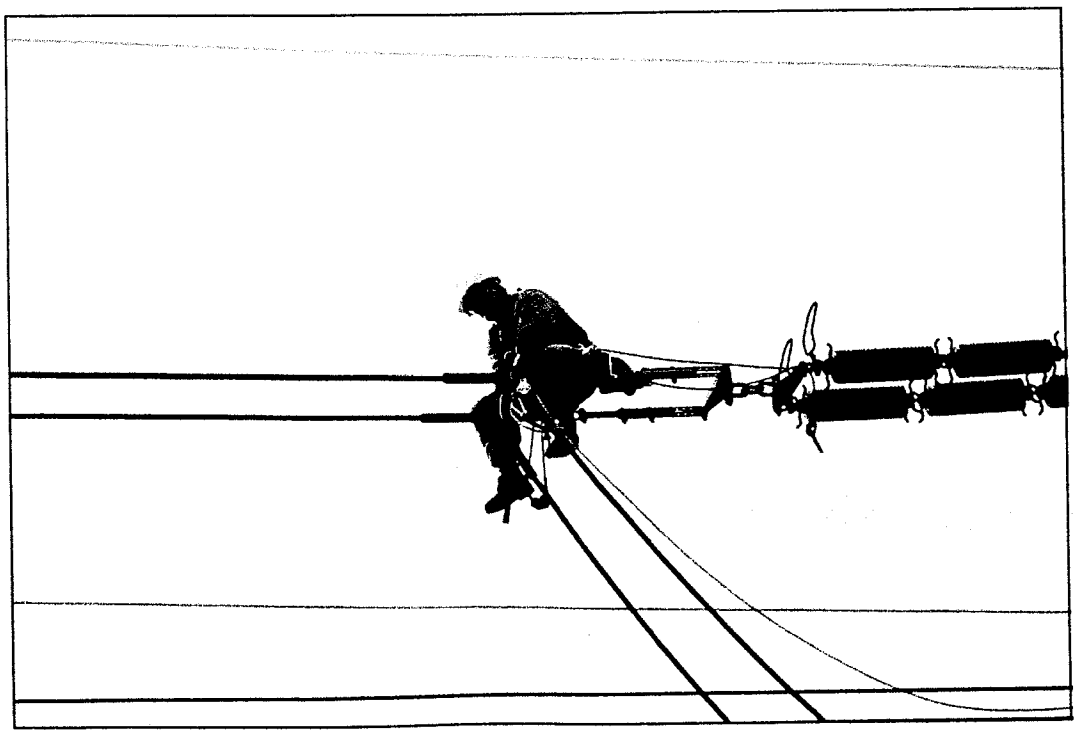
actual distribution of industrial customers), yet provides a sense of the degree of variability that can result when simple assumptions like this are used to evaluate the cost of power interruptions.

The uncertainties found were attributed to a lack of systematic reliable collection of data on customer reliability experiences and the costs of power interruptions to individual customers. This review did not incorporate any analysis of power-quality events (because they are not tracked) or information on customer efforts to reduce their vulnerability to reliability events. Three improvements were suggested to more accurately develop outage cost data:

- Coordinated, nationwide collection of updated information on the cost of reliability events to customers;
- Consistent definition and tracking of the frequency, duration, timing, and number and type of customers affected by reliability events, including power-quality events by customer class; and
- Collection of information on efforts by customers to reduce their vulnerability to reliability events through investments in technology and other measures.

A study of power interruption costs by the Pacific Northwest National Laboratory (PNNL) also concluded that additional surveys of energy consumers were needed to more accurately quantify the cost of outages.[49] In addition to similar conclusions to the LBNL survey regarding available data, PNNL also recommended a more in depth analysis to consider the effects of privatization and deregulation of electrical utilities, price instability in certain regions, the continued evolution of alternative auxiliary power systems.[50]

Subject to the above limitations, the LBNL survey found that "Although there are important variations in the composition of customer types within each region, the total cost of reliability events tends to correlate roughly with the number of commercial and industrial customers in each region."[51]



Findings

Our findings are sobering. The West faces a serious and quantifiable threat of blackouts, brownouts and other reliability vulnerabilities:

- The costs of new generation differ significantly by energy source and the costs of renewable generation options may be five or six times the cost of some fossil fuel options.
- Transmission line costs per-mile are very difficult to estimate and can differ by a factor of 30 or more, depending on a host of technical and geographic factors.
- On the basis of NERC data and forecasts, we estimate that the U.S. will require nearly 120 GW of new capacity by 2016. Using EIA generation cost estimates, we estimate that this new capacity will cost about $250 billion to install.
- On the basis of NERC data and forecasts, we estimate that the U.S. will require more than 14,500 miles of new transmission lines by 2016, with nearly half being required in the WECC region (Western U.S.).
- On the basis of transmission cost estimates available in the literature and data from EEI, we estimate that the cost of this transmission will total approximately **$80 billion**.
- We estimate that total U.S. new generation and transmission (G&T) costs through 2016 will total about 1/3 trillion dollars.

However, this estimate of future costs may be low because:

- The costs of all energy projects, including generation and transmission, have been rising and may exceed current estimates.
- Our estimates only provide for a 15 percent capacity margin in 2016 – the minimum required. If a higher margin is desired, the costs will be significantly greater.
- The estimates do not include generation and transmission costs beyond 2016, since this is the last year of the current NERC forecast. It is already apparent that substantial generation and transmission costs will be necessary after 2016.
- State renewable portfolio standard (RPS) mandates may significantly increase generation and transmission costs, since renewables are more expensive than alternatives and require extensive transmission.[29] California is currently considering mandating an RPS of 33 percent by 2020, and a number of other states are also pursuing aggressive RPS initiatives.
- The next annual NERC report is scheduled for release in October 2008, and the estimates derived here can be revised on the basis of more recent data.

Conclusions

- ★ The U.S. faces potentially crippling electricity brownouts and blackouts beginning in the summer of 2009, which may cost tens of billions of dollars and threaten lives. Unless major investments are made immediately in both electricity generation (power plants) and transmission (power lines), the threat of service interruptions will increase.

- ★ If vulnerable regions, such as the Western U.S., experience unusually hot temperatures for prolonged periods of time in 2009, the potential for local brownouts or blackouts is high, with significant risk that local disruptions could cascade into regional outages that could cost the economy tens of billions of dollars.

- ★ U.S. baseload generation capacity reserve margins have declined precipitously to 17 percent in 2007, from 30-40 percent in the early 1990s. A 12-15 percent capacity reserve margin is the minimum required to ensure reliability and stability of the nation's electricity system.

- ★ Compounding this capacity deficiency, the projected U.S. demand in the next ten years is forecast to grow by 18 percent, far exceeding the projected eight percent growth in baseload generation capacity between now and 2016.

- ★ In total, the U.S. will require about 120 gigawatts (GW) of new generation just to maintain a 15 percent reserve margin.

- ★ Using data from the North American Electric Reliability Corporation (NERC), we estimate that the U.S. will require more than 14,500 miles of new electricity transmission lines by 2016. Regions represented by the Florida Reliability Coordination Council (FRCC) and the Northeast Power Coordinating Council (NPCC) may require less than 400 miles of new transmission lines, while the Southeast Reliability Council (SERC) may require nearly 2,300 miles. The Western Electricity Coordinating Council (WECC) may require nearly 7,000 miles.

- ★ Investments in new generation and transmission required by 2016 will be a minimum of $300 billion dollars. This may be a conservative estimate, and actual costs could be much higher.

- ★ With growing nationwide reliance on natural gas for new baseload electricity generation, disruptions in the supply or delivery of natural gas could have a significant impact on the reliability and cost of electricity in a number of regions.

- ★ While renewable energy proponents, and some elected officials, are saying that the U.S. needs to only add renewable power facilities such as wind farms, the annual capacity factor of wind generators is typically

about 25 - 35 percent. However, the probability that wind generators are available at their rated value during annual peak periods is only between 5 - 20 percent and varies greatly from year to year and region to region. Wind cannot be considered a reliable baseload capacity resource.

★ In the West, activist groups are pressuring government regulators to limit access to the region's high-voltage transmission grid to large baseload technologies such as coal. They propose favoring non-baseload, intermittent power facilities such as wind and solar, which will decrease the stability and reliability of the entire Western grid.

★ The major impediments to strengthening the nation's electricity infrastructure and maintaining grid reliability are:

1. Lawsuits by environmental groups against power plants, transmission lines and natural gas production;

2. Regulatory uncertainty tied to federal and state climate change policies;

3. Challenges associated with integrating more intermittent power sources on the transmission grid;

4. Reluctance by state regulators to approve rate increases related to the imposition of new environmental or climate-related regulation; and

5. The relatively shorter-term approach to resource planning and acquisition that industry has been forced to adopt because of all of the above factors.

★ Of these impediments, the single biggest threat to system reliability is opposition from well-funded environmental groups that oppose and file lawsuits against virtually every new electricity project proposed.

Endnotes

1. U.S. National Academy of Engineering, 1999.
2. North American Electric Reliability Corporation, *2007 Long-Term Reliability Assessment*, October 2007.
3. Ibid.
4. Ibid. Note that map identifies the years when a region/subregion drops below target capacity margin levels required to meet summer peak (unless noted as winter) including both committed and uncommitted resources. Those region/subregions not identified are not projected in the next ten years to drop below their target margin levels. **Note:** The highlighted area between SPP and SERC denotes overlapping regional boundaries.
5. Ibid.
6. U.S. Energy Information Administration, Annual Energy Outlook 2008, 2008. These EIA estimates are 'overnight' costs and exclude financing and related costs.
7. U.S. Department of Energy, *National Electric Transmission Congestion Study*, 2006.
8. Ibid.
9. North American Electric Reliability Corporation, *2007 Long-Term Reliability Assessment*, October 2007.
10. U.S. Government Accountability Office, *Transmission Lines: Issues Associated With High-Voltage Direct-Current Transmission Lines Along Transportation Rights of Way*, February 1, 2008.
11. North American Electric Reliability Corporation, *2007 Long-Term Reliability Assessment*, October 2007.
12. For example, "New Transmission Lines Benefit Customers," *Energy Insights*, Pacific Power, July 2007; "PHI's Proposed Interstate Transmission Line Backed Key Support for Building 500-kV Line to Improve Reliability, Keep Costs Down," Pepco Holdings, August 22, 2007; "Line to be Built by Allegheny Energy and American Electric Power, *Business Wire*, June 22, 2007.
13. Edison Electric Institute, *Transmission Projects: At a Glance*, January 2008.
14. The report includes member company projects representative of various project investment category types, such as long line, reliability, economic, resource access (conventional and renewable), multi-state, multi-entity (e.g., projects involving IOU and Public Power as collaborative efforts), and non-transmission line projects. In almost all cases, a minimum project investment threshold of $20 million was applied to prospective projects and only projects proposed to begin from 2007 going through 2022 were included (this represents a one year back looking and 15 years forward looking window).
15. Ibid.
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17. Jason Groves, "Power Cuts 'Could Spark Disorder,'" *Daily Express*, September 7, 2008.
18. Lisa Murray, "Business Anger Over Indonesia's Power Crisis," *Financial Times*, July 18, 2008.
19. "Power Crisis Hits Indian Cities," BBC Word News America, July 25, 2008.
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21. Maung Too, "Electricity Shortages in Rangoon and Magwe," Democratic Voice of Burma, April 10, 2008.
22. *Associated Press* photo and dispatch by Khalid Tanveer, 2008.

23. North American Electric Reliability Corporation, *2007 Long-Term Reliability Assessment*, October 2007.

24. For example, natural gas plants can sometimes be constructed is as little as 18 months.

25. U.S. Energy Information Administration, Annual Energy Outlook 2008, 2008.

26. North American Electric Reliability Corporation, op. cit.

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28. American Gas Foundation, "*The Energy Policy Act of 2005 and its Impact on the U.S. Natural Gas Supply/Demand Imbalance*," January 2007

29. Roger H. Bezdek and Robert M. Wendling, "*The Case Against Natural Gas Preferences*," Public Utilities Fortnightly, April 2004, pp. 43-47.

30. Lester R. Brown, *"U.S. Moving Toward a Ban on New Coal-fired Power Plants,"* Earth Policy Institute, February 14, 2008.

31. North American Electric Reliability Corporation, op cit.

32. http://www.epa.gov/waterscience.

33. U.S. Clean Water Act, page 169, http://www.epa.gov/region5/water/pdf/ecwa.

34. Amy Royden-Bloom, *"State Greenhouse Gas (GHG) Actions,"* National Association of Clean Air Agencies, January 16, 2008.

35. *"GHG Emission Limits Proposals From the 110th Congress,"* Pew Center on Global Climate Change, www.pewclimate.org

36. *"$45.3 Billion In U.S. Coal-Fired Power Plants Cancelled In 2007,"* Resource Media, January 8, 2008.

37. Edison Electric Institute, Transmission Projects: At a Glance, January 2008.

38. North American Electric Reliability Corporation, op cit.

39. Ibid.

40. Ibid.

41. U.S. Energy Information Administration, 2007 Annual Energy Outlook, 2007.

42. North American Electric Reliability Corporation, op cit, and Edison Electric Institute, op. cit.

43. North American Electric Reliability Corporation, op cit.

44. Ibid.

45. Ibid.

46. *Associated Press* story, *"Coal Power Goes On Trial Across U.S.,"* January 14, 2008.

47. Colorado Energy Forum, *"Colorado's Electricity Future,"* 2006.

48. J. Eto, L. Lawton, M. Sullivan, K. Van Liere, and A. Katz., "*A Framework and Review of Customer Outage Costs: Integration and Analysis of electric Utility Outage Cost Surveys*". Lawrence Berkley National Laboratory, Report No. LBNL-54365, Berkeley CA, Nov. 2003.

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50. Ibid.

51. Ibid.

52. EEI notes that connecting location-constrained renewable resources to the transmission network in the most cost-effective manner can present "special challenges." Edison Electric Institute, op. cit.

Appendix

A recent survey conducted by U.S. Representative John Shadegg (R-AZ) produced the following summary of environmental group challenges to key oil and gas developments:

Environmental groups have challenged every oil and gas lease in the Chukchi Sea:

- The Bush Administration issued 487 leases in the Chukchi Sea Sale 193 in February 2008.
- The Center for Biological Diversity, the Natural Resources Defense Council, the Sierra Club, and other environmental organizations, in January 2008, filed a pre-emptive suit challenging all 487 leases under the National Environmental Policy Act of the Endangered Species Act.
- **Status**: Currently Pending.

Environmental groups have challenged the entire 2007-2015 national OCS leasing program:

- The Bush Administration, in July 2007, proposed a national schedule to issue oil leases over a 5-year period (2007-2012) in the outer continental shelf, including Alaska.
- The Center for Biological Diversity and other environmental organizations immediately filed suit challenging all existing leases and all future leases under the Endangered Species Act, and various other laws.
- **Status**: Currently Pending.

Environmental groups have challenged exploration activities of every lease in the Chukchi and Beaufort Seas:

- There are 748 leases which lie in the Chukchi and Beaufort Seas.
- The Center for Biological Diversity, the Natural Resources Defense Council, and other environmental organizations, in May 2008, sued, challenging all seismic activity at all 748 leases in the Chukchi and Beaufort Seas under the National Environmental Policy Act and the Marine Mammals Protection Act.
- **Status:** Currently Pending.

Environmental groups have challenged proposed drilling plans:

- On February 15, 2007, the Minerals Management Service approved the proposed exploration plan for 12 leases in the Beaufort Sea.
- The Center for Biological Diversity, the Natural Resources Defense Council, the Sierra Club, and other environmental organizations sued in April 2007 and obtained a court order halting drilling on all 12 leases. This order has already stopped activity for two years.
- **Status:** Currently Pending.

Environmental groups sue under FOIA seeking evidence for use in future litigation to block all oil and gas leases:

- The administration issued 487 leases in the Chukchi Sea Sale 193 in February 2008.

- The Center for Biological Diversity and the Natural Resources Defense Council, in January 2008, sued under the Freedom of Information Act (FOIA), seeking documents for their effort to stop all oil exploration and protection.
- **Status:** Currently Pending.

Environmental activists protest every lease in BLM New Mexico State Office lease sale:

- On July 16th, 2008, the BLM New Mexico State Office auctioned 78 leases in New Mexico, Kansas, Oklahoma, and Texas.
- The Western Environmental Law Center and the Wild Earth Guardians preemptively, on July 1, 2008, administratively challenged all 78 leases under the Federal Land Policy and Management Act.
- **Status**: Currently Pending.

Environmental activists block a majority of oil and gas leases in the Rocky Mountain States:

- In 2007, approximately 50 percent of the oil and gas leases in the Rocky Mountain States were administratively challenged.
- In Utah alone, oil and gas development on millions of acres is being held up by environmental groups.

Consider these facts:

- The Department of Energy's Electricity Advisory Board issued a report in January, 2009, warning that the nation's fragmented and underfunded electricity grids are inadequate to handle the expected growth in electricity demand and the increased long-distance flows of electricity required to bring resources (particularly renewable sources) to the nation's populations centers. The 31-member Board points to aging, obsolete transmission systems; uncoordinated state and federal regulatory policies; shortages of electrical engineers and technicians; and a scarcity of investment capital due to the ongoing financial crisis pose a combined threat to th system. To view that report:
http://docs.westernroundtable.com/energy/DOE_ElectricityAdvisoryBoard_TransmissionF

- A recent NextGen Energy Council study, citing NERC data, noted that the U.S. neec to maintain excess baseload generating capacity of about 12-15 percent to provide the minimum "reserve capacity margin" so that we can better insulate citizens from blackouts or brownouts. However, U.S. baseload generation reserve capacity margins have declined precipitously, from 30-40 percent in the early 1990s, to less than 17 percent in many regions today. The National Electricity Reliability Corporation (NERC) estimates the reserve margins in the Western grid will drop below the minimu level in 2009-2010. To view that report:
http://www.nextgenenergy.org/Portals/Nextgen/studies/Nextgen_Lights_Out_Study.pdf

- Many experts agree that the U.S. will require about 120 gigawatts (GW) of new generation just to maintain a 15 percent reserve margin. That will require at leas $300 billion in generation and transmission facility investments by 2016. Yet, in spite of this, several Western Governors and environmental organizations are recommending, through their recently released "Western Climate Initiative," that th West allow no new baseload generation to be added to the West's grid from natural gas, clean coal with carbon capture, renewable hydropower or nuclear energy.

- A 2008 U.S. Department of Agriculture study, Rural Electric Power Generation and Capacity Expansion, came to similar conclusions. It found that rural electric cooperatives, which serve primarily rural areas, "are forecasting the need to build new baseload capacity to meet the requirements of their customers" and "need to double generation capacity by 2020." It goes on to say that "due to the significar lead time necessary for the addition of new baseload capacity, many utilities, including cooperatives, are behind the curve." Compounding the need for more generation, the report noted that "the existing transmission grid is operating at capacity and many parts of the grid are operating beyond expected life cycles. The lack of transmission capacity is also impeding the development of renewable energy resources in remote rural areas." See:
http://www.rurdev.usda.gov/rd/farmbill/08/GenInfo/ElectricPowerGenerationReport.pdf

- According to NERC's 2008 Reliability Assessment, the U.S. already is estimated tc require more than 15,700 miles of new electricity transmission lines over the next ten years. NERC notes that even more resources and investment will be needed, however, to maintain reliability and integrate new resources as aging infrastructur is replaced and changes are needed to the transmission system topology. And the clock is working against us: according to NERC, the timeframe necessary to complete permitting, siting and construction of interstate transmission lines is now between 7-10 years. To view report: http://www.nerc.com/files/LTRA2008.pdf

- Over the next 10 years, new generation supply -- including huge amounts of new intermittent renewable sources -- is expected to outpace transmission development b a factor of two. Many new supply resources are likely to be located remote from demand centers (i.e. wind generation) and location-constrained to those areas. The amount of transmission required to integrate these resources is significant.

- While states and the federal government are moving to mandate large percentages c new power generation to come from renewable sources, we do not currently have the transmission capacity to meet these mandates, nor the baseload power capacity necessary to back intermittent sources of renewables up on the transmission system. In fact, many states with their own mandates for renewables are currently not meeting even modest targets. Transmission inadequacy is often cited as a major reason. (See this 2007 study by Lawrence Berkeley National Laboratory: http://eetd.lbl.gov/ea/ems/reports/lbnl-154e-revised.pdf)

- Complicating matters further, the growing nationwide reliance on natural gas for new baseload electricity generation increases our exposure to disruptions in the supply or delivery of natural gas. Putting all of the West's "eggs in one fuel basket" for electricity generation could have a significant impact on the reliability and cost of electricity in a number of regions.

There are a great number of discussions underway about transforming the nation's energy policy. We strongly urge you and your colleagues to make sure those discussions focus first on getting the fundamentals right. Policymakers need to gain a clear and realistic appreciation of the seriousness of the situation facing our transmission grid and then focus on solving those problems, before committing u to energy, environmental and/or climate change policies that will further stress th over-extended system.

NaturEner

February 17, 2009

Representative Llew Jones
Montana House of Representatives
PO Box 200400
Helena, MT 59620-0400

Dear Mr. Jones,

We would like to thank the people of Montana for their support for development of wind energy generation projects in their State. NaturEner USA is very positive about the potential for wind energy generation in Montana. As you know, in 2008 we completed a 106.5MW facility in Toole and Glacier Counties. We will finish another 103.5MW of that same project this year. It is our intention to continue developing wind generation projects in Montana as long as it is feasible and accepted.

Wind power projects can generate more than renewable non-depleting energy. They can also add to the State's economic diversity by generating income from an existing untapped energy resource with a minimal footprint of disturbance; the original land use can continue uninterrupted. There are no hazardous fuel transportation or storage requirements, and no toxic emissions as a result of this generation.

Montana is benefitting from the increased tax base, addition of temporary and permanent jobs and economic benefit to local businesses from construction activity. However, the State has missed out on the some of the opportunity to participate by having a wind facility providing long term revenue on State land. The reason is the additional requirements for permitting such facilities on State lands. As you know, NaturEner's Glacier Wind project constructed last year near Shelby surrounds a square mile of State land that we would have liked to include in our project. As a landowner with a portion of a wind generation project, the State would benefit with long term rent or royalty payments. But the additional development time and costs included in the State-required process prevented us from considering it in our development plan.

394 Pacific Avenue, Ste. 300, San Francisco, California, 94111 > T 415.217.5500 > F 415.217.5599

www.naturener.net

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House Bills No. 529 and No. 566 are steps in the right direction. They modify the environmental review provisions for in such a way as to help promote the consideration of state lands for development of wind energy projects.

Thank you for your sponsorship of these bills. Naturener looks forward to continued development of these facilities in Montana and the inclusion of State lands in our upcoming plans.

Regards,

Bill E. Alexander
Chief Development Officer
NaturEner USA

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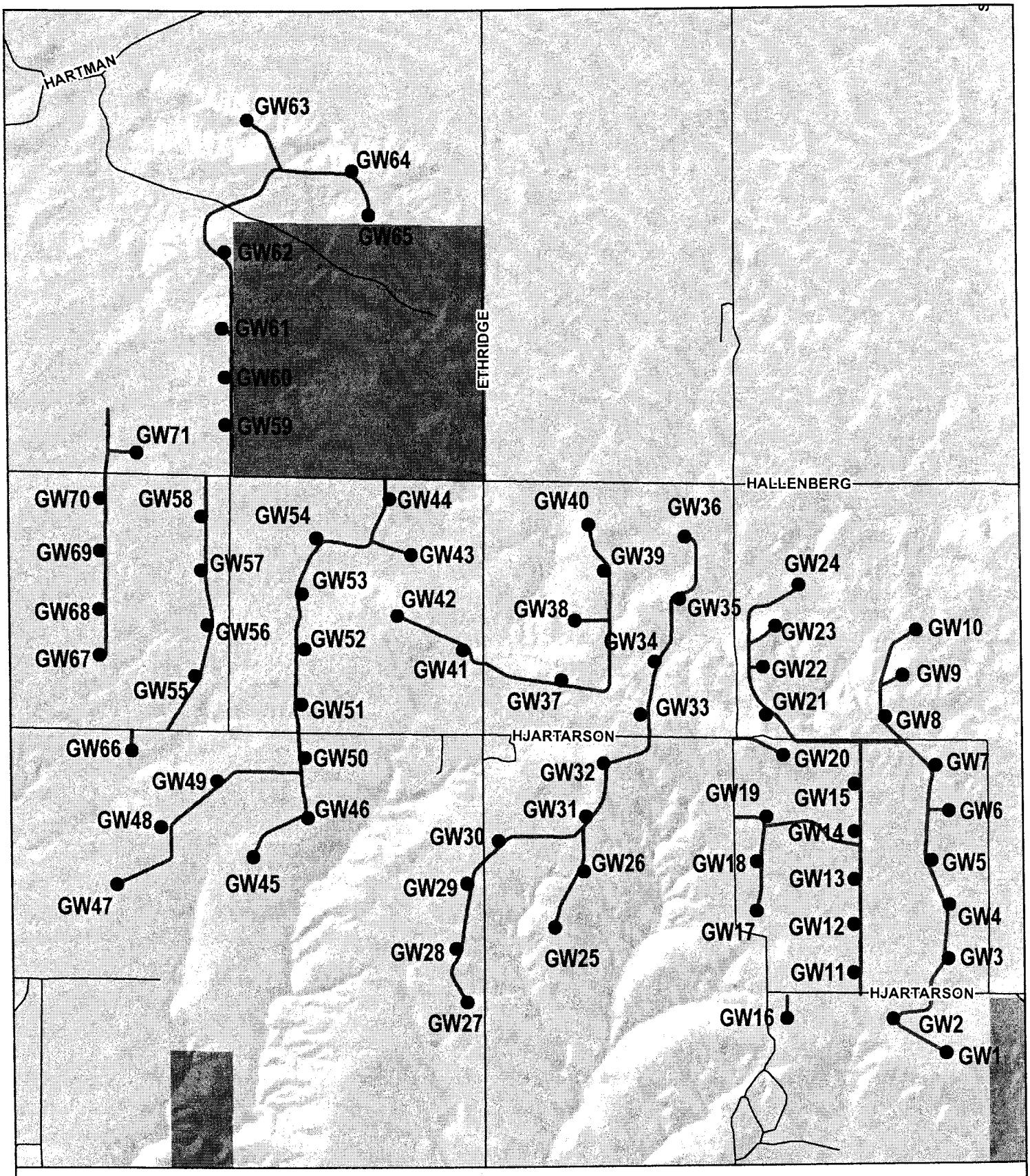

Constructed Layout

Glacier Wind I

For illustrative purposes only.

0 0.25 0.5 1 Miles

0 0.5 1 1.5 2 km

Legend

- Wind Turbine
- Project Road
- County Road
- State Land

NaturEner USA

N

Data Source: USGS. UTM Zone 12 North, NAD83 - Created by HD, 090210. C:\..\GW_Phase_I_State_Land_8_5x11_090210.mxd

Invenergy

February 17, 2009

Dear Rep. Jones,

Invenergy understands that Montana legislators are tackling a difficult topic in 2009—finding a balance between streamlining energy permitting requirements on both State and private land and yet still require a process that promotes responsible environmental review. As a leading energy project developer/operator and owner of the Judith Gap Energy Center near Harlowton, MT, we respectfully would like to provide our perspective.

Invenergy is one of the leading independent power companies in the United States, focusing on both renewable and clean natural gas powered electric generating plants. We have a strong reputation in working with both communities and environmental agencies to site and permit clean renewable energy projects as our country moves toward energy independence. Currently we have developed, financed and built over 2,000 megawatts of wind energy *(including our 135 MW Judith Gap Energy Center)* and over 2,800 megawatts of thermal plants representing financial closings of well over $3 billion over the last 4 years.

Invenergy believes in responsible development, whether it is on private, State or Federal lands. In order to successfully execute one of the largest development plans in North America, it is essential to investigate/evaluate multiple project opportunities and focus capital in States where successful permitting and financial close have a higher degree of certainty.

Over 20,000 megawatts of wind projects have now been built in the United States (the U.S. is now #1 in the world) -- hundreds of pre and post construction environmental studies have been performed demonstrating that modern wind farms, although not without some impacts, are the cleanest most environmentally sound and lowest cost energy technology available—however, often permitting authorities will require the same lengthy and costly environmental studies as a fossil fueled plant. Couple this scenario with an endless appeal process and it is hard to predict if and when the process will come to a conclusion in order to obtain project financing. Unpredictability will reduce the number of projects financed and built in Montana and elsewhere.

In summary, Predictability in a "process" is a very important factor in moving projects towards financial close. Invenergy understands that there are many perspectives that need to be weighed when creating or amending public energy policy. We would welcome engaging different parties in this debate if you would find our participation and perspective valuable.

Sincerely,
Mark D. Jacobson
Director of Business Development
Invenergy Wind LLC

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CEB, Inc.

13 February, 2009

The Honorable Llew Jones,
Montana State Representative
(By email)

Dear Representative Jones,

CEB, Inc. is an international project development and construction company focusing on resource and energy projects. We are currently focusing on Montana State because of its abundant potential for producing clean, renewable energy and energy derived form clean coal. We have delivered resource development projects world wide and have developed a significant network of project finance providers interested in working with us on our projects.

Unfortunately, Montana State has the reputation of being a litigious State seemingly not interested in supporting development of clean energy projects that can provide inexpensive power not only to Montana citizens, but also to consumers outside the State. Because of this, Montana State will loose jobs and place the tax burden on fewer working people increasing their taxes.

Having high DEQ permit standards is understandable and necessary, but having an appeals and litigation process that has no side boards or boundaries is simply bad for business and the State's economy.

Financial Institutions, private investors and Banks that provide the investment necessary for large energy projects see Montana as unpredictable and excessively risky for doing business due to unending appeals, litigation and an environmental Review Board that changes standards midstream in order to delay project development until developer's call it quits.

If Montana is to fully develop its renewable and clean energy technology to become a leading clean energy producer and gain the significant financial and fiscal benefits leading to more employment, salaries and financial security for its citizens, it must level the playing field and reduce unnecessary frivolous appeals and lawsuits.

We encourage Montana State legislators to support House Bills 483, 529 and 566. They will bring employment to the State and significant additional revenues because developers will know they will at least get a "fair shake".

Sincerely yours,

Cyrus E. Berg
President and CEO

19713 NE Arbutus Ct. #100, Poulsbo, Washington 98370
Main office telephone 360 731-3730
Email corkyberg@cebinc.org

As I will be unable to attend Wednesday's hearings in front of the House Federal Relations, Energy, and Telecommunications Committee, I would like to submit this electronic testimony in support of the following 3 bills introduced by Representative Llew Jones:

* HB483-Revising laws governing board of environmental review related to energy projects
* HB529-Generally revise MEPA
* HB566-Revising environmental impact statement laws

All Montanans want our environment protected and yet most also want to appropriately and efficiently utilize an appropriate amount of our "treasures from the Treasure State" to make our state even better for current citizens but also for those that will come after us.

As Executive Director of the School Administrators of Montana (SAM), I would like to offer proponent testimony for the referenced bills and urge you to give them a comprehensive hearing and, after due deliberation, pass them on to the Senate for continued open and comprehensive discussions of their merit. As recent sponsors of the highly successful Repowering Montana Schools, with extensive support from the energy industry, SAM is confident that Montanans can do it right and even improve the current policies so that we can appropriately utilize our resources while still protecting our environment and our way of life.

Respectfully submitted,

Darrell Rud

Executive Director

School Administrators of Montana